

COUNTY NOTICES PURSUANT TO A.R.S. § 49-112

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NOTICE OF PROPOSED RULEMAKING MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS FIVE PERCENT PLAN RULEMAKING PROJECT

[M07-622]

PREAMBLE

1. Sections affected

Rule 200
Rule 310
Rule 310.01
Appendix C

Rulemaking action

Amend
Amend
Amend
Amend

2. Statutory authority for the rulemaking:

Authorizing statutes: A.R.S. §§ 499-474, 49-479, and 49-480
Implementing statute: A.R.S. § 49-112

3. List of all previous notices appearing in the register addressing the proposed rule:

Notice of Rulemaking Docket Opening: 13 A.A.R. 2175, June 22, 2007

4. The name and address of department personnel with whom persons may communicate regarding the rulemaking:

Name: Johanna M. Kuspert or Jo Crumbaker
Maricopa County Air Quality Department

Address: 1001 N. Central Ave., Suite 595
Phoenix, AZ 85004

Telephone: (602) 506-6710 or (602) 506-6705

Fax: (602) 506-6179

E-mail: jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

5. An explanation of the rule, including the agency's reasons for initiating the rulemaking:

The Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 200, Rule 310, Rule 310.01, and Appendix C. The MCAQD is proposing these revisions to Rules 200, 310, 310.01 and Appendix C to implement control measures and increase compliance with existing rules for the Five Percent Plan for PM₁₀. On June 6, 2007, the Environmental Protection Agency (EPA) finalized its finding that the Phoenix Nonattainment Area did not attain the 24-hour PM₁₀ standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007) Under Section 189(d) of the CAA, serious PM₁₀ nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, "plan revisions which provide for attainment of the PM₁₀ air quality standard and, from the date of such submission until attainment, for an annual reduction in PM₁₀ or PM₁₀ precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area." In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM₁₀ by December 31, 2007.

PM₁₀ Nonattainment Status History:

In accordance with 1990 Clean Air Act Amendments, the Maricopa County nonattainment area was initially classified as "moderate" for PM₁₀ pollution. As a moderate nonattainment area, Maricopa County was required to submit to the EPA a moderate PM₁₀ nonattainment area plan and to show attainment of the PM₁₀ national ambient air quality standards

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(NAAQS) by December 31, 1994. Moderate PM₁₀ nonattainment area plans were submitted to the EPA in 1991 and 1993.

The Maricopa County moderate PM₁₀ nonattainment area, upon the EPA's findings, failed to attain the NAAQS by December 31, 1994. Consequently, on May 10, 1996, the EPA reclassified Maricopa County as a serious PM₁₀ nonattainment area. Maricopa County was then required to submit a serious PM₁₀ nonattainment area plan, which had to include best available control measures (BACM), measures designed to achieve the maximum degree of emissions reduction for PM₁₀ sources. Maricopa County had to show attainment of the PM₁₀ NAAQS by December 21, 2001. Emission inventories and air quality modeling analysis of existing control measures showed that attainment could not be reached by December 21, 2001. A shortfall of a 16.4% reduction in PM₁₀ concentration was identified. The CAA allows states to request an extension of this attainment date for up to five years, providing the state demonstrates that the plan includes the most stringent measures (MSM) that are included in any state's plan or achieved in practice by any State, and can be feasibly implemented in the area. Consequently, a rigorous planning effort was conducted to develop 77 additional control measures. The serious PM₁₀ nonattainment area plan was submitted to the EPA on July 9, 1999. The EPA approved the revised serious PM₁₀ nonattainment area plan in April 2002, contingent on the completion of three commitments by Maricopa County. The revisions to Rule 310 (adopted April 7, 2004) addressed the commitments.

As a result of litigation on the moderate PM₁₀ nonattainment area plan, the Arizona Department Of Environmental Quality (ADEQ's) prepared and submitted a Plan For Attainment Of The 24-Hour PM₁₀ Standard–Maricopa County PM₁₀ Nonattainment Area in May 1997. EPA partially disapproved the Arizona 24-hour Standard PM₁₀ SIP revision triggering a federal implementation plan (FIP) obligation, which remains in place, related to the area's PM₁₀ moderate area plan. The obligation resulted from EPA disapproved those sections of the SIP addressing unpaved roads, unpaved shoulders, unpaved parking lots, vacant lots and agriculture. EPA found that the SIP did not contain measures to reduce the emissions from or the number of existing sources in these categories and therefore failed to implement reasonably available control measures. Under the court ordered consent decree, EPA finalized a FIP in July 1998 for the Maricopa County PM₁₀ nonattainment area that addresses those four categories of sources.

On July 2, 2002, the Environmental Protection Agency (EPA) found the controls proposed in the Arizona 24-hour Standard PM₁₀ SIP revision were inadequate to ensure the attainment of the PM₁₀ national ambient air quality standards (NAAQS) at the Salt River air quality monitoring sites. The finding of inadequacy included the State Implementation Plan's (SIP's) attainment and reasonable further progress (RFP) demonstrations for the 24-hour PM₁₀ standard at the Salt River monitoring sites and three other microscale sites in the Maricopa County PM₁₀ nonattainment area (Maryvale, Gilbert, and West Chandler).

Although the EPA approved Arizona's 1997 SIP revision and additional required controls proposed by Maricopa County on August 4, 1997, EPA's Aerometric Information Retrieval System (AIRS) continued to show exceedances at the Maricopa County PM₁₀ nonattainment area Salt River site - recording expected exceedances in 1999, 2000, and through three quarters of 2001. Consequently, the EPA required Arizona to submit a SIP revision to identify and implement corrective PM₁₀ control provisions in the Salt River Study Area and for similar significant sources in the Maricopa County PM₁₀ nonattainment area.

Arizona's SIP revision was required to provide for attainment in the Salt River site no later than December 31, 2006, in accordance with CAA §189(b)(1)(A) and 188(e), and was required to include control strategies that meet the best available control measures (BACM) test and the most stringent measures (MSM) test for significant sources and source categories.

The Final Revised PM₁₀ State Implementation Plan For The Salt River Area dated August 2004 contained Arizona's revisions to the State Implementation Plan for the Maricopa County PM₁₀ serious nonattainment area and included the following State Implementation Plan requirements, as described by the EPA in its Federal Register notice of disapproval (67 FR 44369, July 2, 2002):

- A modeling demonstration showing that the level of emissions reductions from application of BACM-MSM for all significant sources of PM₁₀ will result in attainment of the 24-hour NAAQS by December 31, 2006, at the Salt River PM₁₀ monitoring site, in accordance with CAA §189(b)(1)(A) and §188(e).
- Commitments to implement best available control measures (BACM)-most stringent measures (MSM) for sources significantly contributing to exceedances of the 24-hour PM₁₀ standard in the Salt River area as expeditiously as possible (CAA §189(b)(1)(B)) and a commitment that all BACM and MSM control measures adopted and applied to sources in the Salt River Study Area will be applied to all similar sources throughout the Maricopa County PM₁₀ serious nonattainment area.

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- A demonstration that the plan constitutes Reasonable Further Progress (RFP) up to the attainment deadline - December 31, 2006.
- A demonstration that all the requirements of the federal Clean Air Act Amendments that pertain to serious PM₁₀ nonattainment areas are met - including CAA §110(l), §110(a)(2)(E)(i), and 40 CFR §51.280 and §51.111).

Explanation For Current Rulemaking Proposals:

For the Five Percent Plan for PM₁₀, an analysis was again conducted to identify additional measures to reduce emissions and/or improve compliance with existing requirements. In addition, the Arizona State Legislature enacted SB 1552 that also contains requirements for additional control measures that are proposed for inclusion in the revisions to the rules proposed in this notice. The MCAQD is also proposing to re-format the rules and clarify text to address concerns and comments that arose in the enforcement process. Finally, the MCAQD is also proposing to include several control measures adopted as BACM/MSM in Maricopa County Air Pollution Control Regulations Rule 316 in June 2005 for the Salt River SIP in Rules 310 and 310.01.

From July 2006 through January 2007, the MCAQD conducted a rule effectiveness study for Rules 310, 310.01 and 316. The results of the study were applied to the 2005 periodic emission inventory for PM₁₀ to estimate emissions from the affected source categories. The study found that 51% of permitted sites complied with Rule 310 and 68% on the non-permitted sites complied with Rule 310.01. To improve the compliance rate for the rules, the proposed rule revisions include provisions to train and educate affected sources consistent with SB 1552, clarify existing rule provisions and include new provisions to increase the consistency of compliance.

The MCAQD reviewed rules from Clark County, Nevada; Pima County Department of Environmental Quality, Arizona (Pima DEQ); South Coast Air Quality Management District, California (SCAQMD); and San Joaquin Unified Air Pollution Control District, California (SJUAPCD) to identify differences between County rules and rules from areas that successfully met the December 31, 2006 attainment date.

Clark County fugitive dust rules apply to a desert environment and Clark County did attain the PM₁₀ standard by December 31, 2006. Clark County Regulation Section 94 – Permitting And Dust Control For Construction Activities includes specific actions than an affected owner or operator must complete each day (94.7.8) and includes a subsection on Construction Activities Violations (94.10.1) that provides an extensive list of actions that may result in a violation. The MCAQD is proposing rule revisions modeled after the Clark County rule to the existing recordkeeping requirements to more clearly describe what actions are necessary in order to record the application of dust control measures daily. The MCAQD is also proposing a General Requirements subsection that includes a similar extensive list to summarize and remind owners and operators of all the various requirements contained in Rule 310.

SCAQMD Rule 403 includes a requirement that the cumulative trackout from all exits for a site shall not exceed 25 feet. This requirement was included in Rule 316 as BACM/MSM for the Salt River SIP revision. The Maricopa County Associations Of Government (MAG) included this measure as a suggested measure in the Draft Five Percent Plan. The MCAQD is proposing to apply this measure to the other fugitive dust sources in Rules 310 and 310.01.

Clark County, Pima DEQ, SCAQMD, and SJUAPCD rules all include provisions that do not allow visible emissions from activities on a site to extend beyond the property line. MAG also included this measure as a suggested measure in the Draft Five Percent Plan. The MCAQD is proposing to include this measure in Rules 310 and in 310.01 to improve compliance with the rules.

Clark County Sections 90 and 94 include requirements for long-term stabilization. Section 94.8.3 requires long-term stabilization when a site or part thereof becomes inactive for a period of 30 days or longer to be implemented within 10 days. The Clark County Section 90.2.1.1(a) does not allow the use of water where measures to prevent vehicular trespassing and movement are not effective. The MCAQD is proposing revisions to the long-term stabilization control measures that reduce the period of inactivity to 30 days and links the stabilization by water with the requirement for barriers.

Other revisions incorporate the provisions of SB 1552 that mandate training and require a dust coordinator to be onsite at all times in Rule 310. These changes are designed to improve the site oversight and increase the compliance rate with the existing rule provisions. Based on the MCAQD's experience in enforcing the current rules, several changes are proposed to clarify existing requirements. For example, the MCAQD has been receiving complaints about dust emissions from

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vehicles driving on dusty surfaces on construction projects at schools and hospitals and from vehicles passing dusty curbs, gutters and sidewalks. The MCAQD is proposing to clarify the definition of “area accessible to the public” by removing the word “retail” from the definition. The MCAQD is also proposing to extend the trackout clean up requirements to include curbs, gutters and sidewalks as well as paved roads.

In Rule 310.01, the MCAQD is proposing to add the requirement to install a trackout control device to the subsection covering unpaved parking lots and the subsection covering off-site hauling of bulk materials by livestock operations. The MCAQD is also proposing to add control measures for other areas of a livestock operation beyond the livestock areas and modify the data reduction method for the opacity standard. SB 1552 does not include a de minimis threshold for vacant lots or unpaved ingress, egress, vehicle parking and use areas other than for a property with 4 or fewer residential units. The MCAQD is proposing to revise the threshold for vehicle use in open areas and vacant lots to be consistent with the de minimis threshold in the open areas and vacant lot subsection. In addition, the threshold for stabilizing an unpaved parking lot will be revised to match the requirements of SB 1552. The MCAQD is also proposing to include another provision from SB 1552 authorizing the County to enter a lot to stabilize the disturbed surface at the expense of the owner if the vacant lot has not been stabilized by the day set for compliance in the 30 day notification letter.

In Rule 200, the MCAQD is proposing to add provisions that require subcontractors working on dust generating operations to register with the County to comply with SB 1552. The subcontractors will receive a registration number that they will be required to keep readily accessible to the Control Officer.

Section By Section Explanation Of Changes:

Rule 200-Permit Requirements:

Section 301-Permits Required: To change “this rule” to “these rules” and to add as last sentence “The Maricopa County Air Quality Department issues the following permits: Title V permits, Non-Title V permits, General permits, Dust Control permits, and Permits To Burn. The standards and/or requirements for these permits are described in Section 302 thru Section 305 of this rule. Additional standards, administrative requirements, and monitoring and records requirements for some of these permits are described in individual rules of these rules, as applicable/as specified in Section 302 thru Section 305 of this rule.”

Section 305-Earth Moving Permit: To change heading “Earth Moving Permit” to “Dust Control Permit”. To change introduction “No person shall cause, commence, suffer, allow, or engage in any earth moving operation that disturbs a total surface area of 0.10 acre or more without first obtaining a permit from the Control Officer. This requirement for a permit shall apply to all such activities conducted for commercial, industrial, or institutional purposes or conducted by any governmental entity. The property owner, lessee, developer, or general/prime contractor will be responsible for acquiring the permit. Permits shall not be required for earth moving operations for emergency repair of utilities, paved roads, unpaved roads, shoulders, and/or alleys” to “A Dust Control permit shall be required before a person, including but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of Rule 310 of these rules, causes, commences, suffers, allows, or engages in any dust generating operation that disturbs a total surface area of 0.10 acre (4,356 square feet) or more. The provisions of Rule 310 of these rules shall apply to Dust Control permits, except as otherwise provided in Rule 310 of these rules.”

Section 305.1: To delete “Application: The applicant shall file an application, which includes an 8½" x 11" site map showing all linear dimensions, and shall submit a control plan as described in Rule 310 of these rules.” This information is proposed to be addressed in Rule 310.

Section 305.2: To delete “Annual Block Permit: Any person responsible for more than one earth moving operation consisting of routine operation, maintenance, and expansion or extension of utilities, paved roads, unpaved roads, road shoulders and/or alleys, and public right of ways at non-contiguous sites may submit one permit application covering multiple sites at which construction will commence within 12 months of permit issuance provided that: a. The control plan as described in Rule 310 of these rules applies to all sites; and b. The applicant submits a list of all sites, including the location and size of each site, with the application; and c. For any project not listed in the application, the applicant notifies the Control Officer in writing at least three working days prior to commencing the earth moving operation. The notice shall include the site location, size, type of activity, and start date.” This information is proposed to be addressed in Rule 310.

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Section 305.3: To delete “Action On Permit Application: The Control Officer shall take final action on an earth moving permit application within 14 calendar days of the filing of the completed application. The Control Officer shall notify the applicant in writing of his approval or denial.” This information is proposed to be addressed in Rule 310.

Section 305.4: To delete “Permit Term: Earth Moving permits issued pursuant to this rule shall be issued for a period of one year from the date of issuance.” This information is proposed to be addressed in Rule 310.

Section 305.5: To delete “Permit Renewal: Earth Moving permits shall be renewed annually should the project last longer than one year from the date the permit was issued. Applications for permit renewal shall be submitted to the Control Officer at least 14 calendar days prior to the expiration date of the original permit.” This information is proposed to be addressed in Rule 310.

New Section 306-Subcontractor Registration: To add new Section 306 to comply with Arizona Revised Statutes (A.R.S.) § 49-474.06: “306.1 A subcontractor who is engaged in dust generating operations at a site that is subject to a permit that is issued by a Control Officer and that requires control of PM₁₀ emissions from dust generating operations shall register with the Control Officer by submitting information in the manner prescribed by the Control Officer. The Control Officer shall issue a registration number after payment of the fee. The Control Officer may establish and assess a fee for the registration based on the total cost of processing the registration and issuance of a registration number. 306.2 The subcontractor shall have its registration number readily accessible on-site while conducting any dust generating operations. The subcontractor’s registration number must be visible and readable by the public without having to be asked by the public (e.g., included/posted in a sign that is visible on the subcontractor’s vehicle or equipment, included/posted on a sign that is visible in the window of the subcontractor’s vehicle or equipment, or included/posted on a sign where the subcontractor is working on the site).”

Rule 310-Fugitive Dust:

Rule Title: To change “Fugitive Dust” to “Fugitive Dust From Dust Generating Operations.”

Section 101: To add “(PM₁₀).”

Section 102: To add “of this rule.”

Section 103: To change format. To add exemption for non-traditional sources. To add exemption for emergency activities. To delete “The following are exempt from the requirements of this rule: normal farm cultural practices under Arizona Revised Statutes (A.R.S.) § 49-457 and § 49-504.4, and open areas, vacant lots, unpaved parking lots, and unpaved roadways that are not located at sources that require any permit under these rules” and to add “The provisions of this rule shall not apply to the following activities: 103.1 The provisions of this rule shall not apply to normal farm cultural practices according to Arizona Revised Statutes (A.R.S.) § 49-457 and A.R.S. § 49-504.4. 103.2 The provisions of this rule shall not apply to the following non-traditional sources of fugitive dust that are located at sources that do not require any permit under these rules. These non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules. a. Vehicle use in open areas and vacant lots. b. Open areas and vacant lots. c. Unpaved parking lots. d. Unpaved roadways (including alleys). e. Livestock activities. f. Erosion-caused deposition of bulk materials onto paved surfaces. g. Easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas). 103.3 The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status. 103.4 An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 304 of this rule. 103.5 Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching performed to establish initial landscapes or to redesign existing landscapes. 103.6 Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules. 103.7 An unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.”

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New Section 201: To add “Area A - As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows: Township 8 North, Range 2 East and Range 3 East; Township 7 North, Range 2 West through Range 5 East; Township 6 North, Range 5 West through Range 6 East; Township 5 North, Range 5 West through Range 7 East; Township 4 North, Range 5 West through Range 8 East; Township 3 North, Range 5 West through Range 8 East; Township 2 North, Range 5 West through Range 8 East; Township 1 North, Range 5 West through Range 7 East; Township 1 South, Range 5 West through Range 7 East; Township 2 South, Range 5 West through Range 7 East; Township 3 South, Range 5 West through Range 1 East; Township 4 South, Range 5 West through Range 1 East.”

Re-Numbered Section 202: To delete “retail”. To delete “open” and to add “accessible.” Areas accessible to the public should not be limited to retail parking lots. Parking lots for churches, schools, other institutions meet the definition. The definition of “area accessible to the public” replaces the definition of “public roadway”. The new term covers areas previously not included, such as paved parking lots accessible to the public. Maricopa County proposed this change on recommendation from enforcement/County Attorney. Maricopa County was unable to proceed with enforcement, when a contractor claimed the shopping center driveway was a site’s trackout control device, instead of installing a device prior to the exit from the building site. The proposed change will close this loophole. Because of the expansion of the “public access” theory, dust generating operations may have increased areas in which they have to use certain dust control measures. Maricopa County predicts that the number of projects that will be newly affected by this change in terminology will be small. Additionally because of existing dust management requirements, it is expected that sources affected by this change have the necessary equipment to easily implement the new standard. The revised definition of “areas accessible to the public”, as reflected in amendments adopted by the Maricopa County Board Of Supervisors during a Public Hearing on April 7, 2004, is the product of Maricopa County’s collaboration with small businesses to design a definition that meets the needs of the regulated community while meeting Maricopa County’s commitments in the serious area PM₁₀ plan. The exception for paved areas that have been designated as a trackout control device would allow Maricopa County the discretion, at the time of approving a Dust Control Plan, to distinguish between suitable paved area trackout control devices that are accessible to the public and those that are not suitable (i.e., shopping mall parking lots). If a source is using a paved area accessible to the public as the trackout control device, then the paved area accessible to the public must be part of the designated work site. The source must identify such paved area accessible to the public as a trackout control device in the Dust Control Plan and must follow the requirements for maintaining a trackout control device. Regardless of an area being an interior road or not, such area accessible to the public is subject to the requirements of Rule 310.

Re-Numbered Section 203: To change format of definition of bulk material and to list only once materials that are listed twice (i.e., earth and soil).

Re-Numbered Section 204: To change format. Unloading applies to dumping activities.

Re-Numbered Section 205.3: To change “pre-wetting” to “pre-watering.” To match term used in Application For Dust Control Permit and Guidance For Application For Dust Control Permit - “pre-watering”.

Re-Numbered Section 206: To match definition of disturbed surface area to definition of disturbed surface area in Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(11) In a county with a population of two million or more persons or any portion of a county within an area designated by the Environmental Protection Agency as a serious PM₁₀ nonattainment area or a maintenance area that was designated as a serious PM₁₀ nonattainment area, no later than March 31, 2008, adopt rule provisions, and, no later than October 1, 2008, commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: “Disturbed surface” means a portion of the earth’s surface or material placed on the earth’s surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. Vacant lots do not include any site of disturbed surface area that is subject to a permit issued by the Control Officer that requires control of PM₁₀ emissions from dust generating operations. To move “For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 301 and Section 302 of this rule” to New Section 103.4.

Re-Numbered Section 208: To delete “fugitive dust” and to add “to be implemented and maintained in order to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.”

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Re-Numbered Section 209: To change format and to change definition to match Clark County's definition of "construction activities" in Section 94-Permitting And Dust Control For Construction Activities. To move "For the purpose of this rule, landscape maintenance and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, landscape maintenance shall not include grading, trenching, or any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes" to New Section 103.5.

Re-Numbered Section 211: To change format.

New Section 212: To add "Emergency - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error."

New Section 213: To add "Emergency Activity - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality."

New Section 214: To add "End Of Work Day - The end of a working period that may include one or more work shifts but not later than 8 pm."

Re-Numbered Section 216: To move "For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules" to New Section 103.6.

Re-Numbered Section 217: To add "A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater." To add dimensions of gravel pad to the definition of gravel pad and to remove dimensions of gravel pad from Rule 310 regarding trackout. Staff recommends that gravel pad be required to be three inches deep instead of six inches deep because experience in the field has shown six inches deep to inhibit vehicle travel rather than reduce trackout. Proposed dimensions of gravel pad are same dimensions required in Clark County's Construction Activities Dust Control Handbook.

Re-Numbered Section 219: To delete "Open Areas And Vacant Lots - Any of the following described in Section 219.1 through Section 219.4 of this rule. For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one open area or vacant lot. 219.1 An unsubdivided or undeveloped tract of land adjoining a developed or partially developed residential, industrial, institutional, governmental, or commercial area. 219.2 A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature. 219.3 A partially developed residential, industrial, institutional, governmental, or commercial lot. 219.4 A tract of land, in the nonattainment area, adjoining agricultural property." Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

New Section 223: To add "Open Storage Pile - Any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-06 or other equivalent method approved in writing by the Control Officer and the Administrator that the silt content is less than 5%." To move definition of "open storage pile" from standards section to definitions section. Term and definition were used in Rule 310, Section 308.6 adopted April 7, 2004. To delete "covers". An open storage pile is an open storage pile if/when such pile attains a height of three feet and a total surface area of 150 square feet or more. Such dimensions match dimensions used in South Coast's Rule 403-Fugitive Dust definition of open storage pile.

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Re-Numbered Section 224: To delete “responsible for obtaining an earthmoving permit under Rule 200, Section 305” and to add “including, but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company.”

New Section 226: To add “Property Line - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.” Definition matches definition used in South Coast’s Rule 403-Fugitive Dust.

Section 230: To delete “Urban Or Suburban Open Area – The definition of urban or suburban open area is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.” Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Section 231: To delete “Vacant Lot – The definition of vacant lot is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.” Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Section 232: To delete “Vacant Parcel – The definition of vacant parcel is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.” Term is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Re-Numbered Section 233: To delete “larger than 5,000 square feet” and to add “material handling”, “and equipment”, and “An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.” To change definition of “unpaved parking lot” to match Clark County’s definition of “unpaved parking lot” in Section 92-Fugitive Dust From Unpaved Parking Lots; Material Handling And Storage Yards; And Vehicle And Equipment Storage Yards.

Re-Numbered Section 234: To move “For the purpose of this rule, an unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles” to New Section 103.8.

Re-Numbered Section 237: To delete “and/or earthmoving operations”, because the phrase is included in the definition of “dust generating operations.”

New Section 301: To add general requirements for dust generating operations. General requirements for dust generating operations are intended to clarify the duties to which an owner and/or operator must comply and to distinguish between control measures, stabilization standards, and test methods. The intent of the language in Section 301 is to make it clear that regardless of a site’s permitting status - permit or no permit, Dust Control Plan or no Dust Control Plan - the site must comply with all the applicable provisions of Rule 310 if engaging in a dust generating operation. Ignorance of Rule 310 through lack of a permit or Dust Control Plan is not an acceptable defense for not implementing Rule 310 provisions at a site that has dust generating operations. Also, to add a statement that requirements of Rule 310 must be complied-with before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays.

New Section 302: To add permit requirements for dust generating operations from Rule 200-Permit Requirements. Permit requirements for earthmoving operations to be revised in Rule 200 and to reference Rule 310.

Re-Numbered Section 303: To delete “The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed 20% opacity as tested by methods described in Appendix C of these rules” and to add heading “Visible Emissions Requirements For Dust Generating Operation.”

New Section 303.1: To add “Dust Generating Operation Opacity Limitation Requirement: The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed the limits listed in either one of the following: a. The owner and/or operator of a dust generating operation shall not cause or allow visible fugitive dust

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emissions to exceed 20% opacity. b. The owner and/or operator of a dust generating operation shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.” To add 0% opacity limit beyond the property line. 0% opacity limit beyond the property line matches standard in Rule 316-Nonmetallic Mineral Processing, standard in Clark County Section 94-Permitting And Dust Control For Construction Activities, and standard in Pima County 17.16.

Re-Numbered Section 303.2: To add heading “Exemptions From Dust Generating Operation Opacity Limitation Requirement.”

Re-Numbered Section 303.2(a): To add “described in Section 303.1(a) of this rule.”

Re-Numbered Section 303.2(a)(1): To delete “1” and to add “one.” To add “following.” To delete “in Tables 20 & 21 was” and to add “were.” To remove reference to Table 20 and Table 21 and to add control measures from Table 20 and Table 21 - regarding wind event - to Rule 310, Section 303.2(a)(1).

Re-Numbered Section 303.2(a)(2): To delete “The 20% opacity exceedance” and to add “Exceedances of the opacity limit described in Section 303.1(a) of this rule.”

Re-Numbered Section 303.2(a)(4): To delete “Maricopa County Environmental Services Department Air Quality Division” and to add “Maricopa County Air Quality Department.”

Re-Numbered Section 303.2(b): To delete “No opacity limitation shall” and to add “The opacity limit described in Section 303.1(a) of this rule shall not.”

Re-Numbered Section 303.2(c): To delete “No opacity limitation shall” and to add “The opacity limit described in Section 303.1(a) of this rule shall not.” To add “However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule.” To add requirement that all areas used to test and validate design integrity, product quality, and/or commercial acceptance and all areas not used to test and validate design integrity, product quality, and/or commercial acceptance must be stabilized and that vehicle test and development facilities may require a Dust Control permit in accordance with Rule 310, Section 302.

Re-Numbered Section 304: To move Dust Control Plan requirements from standards section to administrative requirements section.

Re-Numbered Section 304.1: To add “Section 304.1(a) or Section 304.1(b) of this rule.”

Re-Numbered Section 304.2(a): To add “Section 304.2(a)(1) or Section 304.2(a)(2) of this rule.”

Re-Numbered Section 304.2(b): To add “in Section 304.2(a) of this rule”. To delete “subsection” and to add “section of this rule.” To add “and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.”

Re-Numbered Section 304.3: To delete heading “Open Area And Vacant Lot.” To delete “an open area and/or vacant lot or.” To delete “1” and to add “one.” To delete “Sections 302.3(a) through 302.3(g)” and to add “Section 304.3(a) through 304.3(g).” To delete “a disturbed open area and/or vacant lot or.” To delete “disturbance” and to add “visibly distinguishable stabilization characteristics.” To delete “according to the appropriate test methods in Appendix C of these rules, and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results” and to add “in accordance with the appropriate test methods described in Section 501.2(c) of this rule and in Appendix C-Fugitive Dust Test Methods of these rules.”

Re-Numbered Section 304.3(a): To delete “visible” and to add “soil.”

Re-Numbered Section 304.3(g): To delete “of the Environmental Protection Agency (EPA).”

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Re-Numbered Section 304.4: To add “However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule.” To add requirement that all areas used to test and validate design integrity, product quality, and/or commercial acceptance and all areas not used to test and validate design integrity, product quality, and/or commercial acceptance must be stabilized and that vehicle test and development facilities may require a Dust Control permit in accordance with Rule 310, Section 302.

Re-Numbered Section 305: To add heading “For Dust Generating Operations” and to add “When engaged in a dust generating operation, the owner and/or operator shall install, maintain, and use control measures, as applicable. The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays. Control measures for specific dust generating operations are described in Section 305.1 through Section 305.12 of this rule.” To move the general requirements for control measures to New Section 301 and to retain in Section 305 requirements addressing specific control measures. General requirements for dust generating operations are intended to clarify the duties to which an owner and/or operator must comply and to distinguish between control measures, stabilization standards, and test methods. To delete Rule 310, Section 308 and to add work practices to specific control measures described in re-numbered Section 305.

Re-Numbered Section 305.1: To delete Table 15 and to add control measures from Table 15 to Rule 310, Section 305.1. To change heading to “Off-Site Hauling.” To add requirement to install, maintain, and use a trackout control device. Normally, scrapers would not be subject to Section 305.1, because scrapers are not often utilized to haul or transport bulk material onto a public roadway. If a scraper is utilized for this purpose, then the compartment of the scraper that is hauling bulk material would need to be tarped. “Across the roadway” simply refers to any and all vehicle traffic that goes from one side of the roadway to the other side.

Re-Numbered Section 305.2: To delete Table 13 and Table 14 and to add control measures from Table 13 and Table 14 to Rule 310, Section 305.2 and Section 305.3. Re-numbered Section 305.2 provides for the implementation of one of three control measures - tarping, wetting the load, or limiting vehicle speed. Maricopa County has determined that bulk material hauling and transporting does produce significant emissions and at least one of the three control measures are needed to control emissions.

New Section 305.3: To delete Table 13 and Table 14 and to add control measures from Table 13 and Table 14 to Rule 310, Section 305.2 and Section 305.3.

New Section 305.4: To delete Table 11 and to add control measures from Table 11 to Rule 310, Section 305.4.

New Section 305.5: To delete Table 11 and Table 12 and to add control measures from Table 11 and Table 12 to Rule 310, Section 305.5.

New Section 305.6: To add control measures for staging areas, parking areas, material storage areas, and/or access routes to and from a site. Proposed control measures address vehicle use and parking on sites that require a permit and match Clark County’s Section 94-Permitting And Dust Control For Construction Activities.

New Section 305.7: To delete Table 3 and to add control measures from Table 3 to Rule 310, Section 305.7.

New Section 305.8: To delete Table 18 and to add control measures from Table 18 to Rule 310, Section 305.8.

New Section 305.9: To delete Table 9 and to add control measures from Table 9 to Rule 310, Section 305.9. Pre-watering is intended to control the areas where vehicles and support equipment are operating - not necessarily where the actual blasting is occurring.

New Section 305.10: To delete Table 10 and to add control measures to Rule 310, Section 305.10.

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New Section 305.11: To delete Table 5, Table 6, Table 7, and Table 8 and to add control measures from Table 5, Table 6, Table 7, and Table 8 to Rule 310, Section 305.11. Section 305.11(c)(4) matches Clark County's Construction Activities Dust Control Handbook. The intent of Section 305.11 is to establish a more permanent form of stabilization than water can provide, since the site is complete and most likely will not be visited regularly by site personnel. Water, as a control measure, is too temporary in these instances.

New Section 305.12: To delete Table 19 and to add control measures from Table 19 to Rule 310, Section 305.12. To change "(electricity, natural gas, oil, water, and gas transmission)" to "(transmission of electricity, natural gas, oil, water, and gas)." To change "inside the PM₁₀ nonattainment area and "outside the PM₁₀ nonattainment area" to "inside Area A" and "outside Area A."

Re-Numbered Section 306: To delete Table 16 and Table 17 and to add control measures from Table 16 and Table 17 to Rule 310, Section 306. The dimensions of the gravel pad are minimums. If those dimensions do not produce a reduction in the trackout as required by Section 306, then the site has several options available to it, such as a grizzly, wheel washer, pavement, or extending the length of the gravel pad if that's the site's choice of action. Requiring extra length is not necessary given the other options available to the site. If visible emissions are observed crossing over the property line, then the site would be in violation of that standard. Since trackout is already outside the property line, the property line standard will have no effect on the standards for trackout.

Re-Numbered Section 307: To change "visible crust" to "soil crust."

Re-Numbered Section 308: To move project information sign requirements from standards section to administrative requirements section. Specific information required to be on the project information sign matches requirements in Clark County's Construction Activities Dust Control Handbook adopted March 18, 2003.

New Section 309: To add requirements for dust control training classes to comply with Senate Bill 1552. Basic Dust Control Training Class can be conducted or approved by the Control Officer. Comprehensive Dust Control Training Class can be conducted or approved by the Control Officer. Training class to include implementation of control measures and discussion of what opacity is. However, formal opacity certification training will not be part of the training class. Opacity certification can only be done by the EPA-approved or ADEQ-approved trainers.

New Section 310: To add requirements for a Dust Control Coordinator to comply with Senate Bill 1552. Basic Dust Control Training Class can be conducted or approved by the Control Officer. Comprehensive Dust Control Training Class can be conducted or approved by the Control Officer.

Section 401: To add requirements for Dust Control permits.

Section 402: To move elements of a Dust Control Plan from standards section to administrative requirements section.

New Section 403: To move Dust Control Plan revisions from standards section to administrative requirements section. To add requirements for Dust Control Plan revisions, if requested by the permittee, to match explanation/criteria in Guidance For Application For Dust Control Permit.

New Section 404: To add Dust Control permit-Block permit requirements from Rule 200. Dust Control permit-Bloc permit requirements to be deleted from Rule 200 and to reference Rule 310.

New Section 405: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

New Section 406: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

New Section 407: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

New Section 408: To add administrative requirements/specifics regarding Dust Control permits and Dust Control Plans.

New Section 409: To clarify the permit posting requirements.

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New Section 410: To clarify the compliance schedule. Compliance schedule in Rule 310 adopted April 7, 2004 addresses making changes to an earthmoving permit and making changes to a Non-Title V permit or a Title V permit. The requirements and/or compliance schedule for making such changes are proposed to be addressed in Section 403. Compliance schedule only lists training, because training cannot be implemented immediately/ quickly. The other updated provisions of Rule 310 can be readily implemented as soon as such provisions are adopted, so no compliance schedule is needed for those provisions.

Section 501: To add “the visible emissions requirements in Section 303 of” and “and with the stabilization requirements in Section 304 of this rule.” To specify that test methods are for visible emissions requirements and stabilization requirements.

Section 501.1(a): To add “of these rules.”

Section 501.2(a): To delete “constitutes” and to add “shall constitute.” To delete “1” and to add “one.”

Section 501.2(b): To delete “1” and to add “one.” To delete “constitutes” and to add “shall constitute.”

Section 501.2(c): To delete “Open Area And Vacant Lot”. To delete “subsection” and to add “Section.” To delete “subsection 302.2” and to add “Section 304.3.” “Open area and vacant lot” is used in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.

Section 501.2(c)(1): To delete “visible” and to add “soil.” To delete “/Steel Ball.”

Section 501.2(c)(7): To add “and equivalent” and to delete “of the EPA.”

Section 502.1: To clarify when written records must be kept and what written records must be kept. Proposed text matches Clark County’s Section 94-Permitting And Dust Control For Construction Activities.

Section 502.3: To delete “within” and to add “as soon as possible but no later than.”

Section 503: To clarify who must maintain records and for how long.

Section 504: To delete “Maricopa County Environmental Services Department” and to add “Maricopa County Air Quality Department.”

Section 504.1: To delete “C136-96A” and to add “C136-06”. To delete “1996” and to add “2006.”

Section 504.2: To delete “D2216-98” and to add “D2216-05.” To delete “1998” and to add “2005.”

Section 504.3: To delete “D1557-91(1998)” and to add “D1557-02e1”. To delete “1998” and to add “2002.”

Rule 310.01-Fugitive Dust From Open Areas, Vacant Lots, Unpaved Parking Lots, And Unpaved Roadways:

Rule Title: To change “Fugitive Dust From Open Areas, Vacant Lots, Unpaved Parking Lots, And Unpaved Roadways” to “Fugitive Dust From Non-Traditional Sources Of Fugitive Dust.”

Section 101: To delete “To limit the emission of particulate matter into the ambient air from open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310-Fugitive Dust of these rules, and which do not require a permit nor a Dust Control Plan. The effect of this rule shall be to fine particulate matter (PM₁₀) entrained into the ambient air as a result of the impact of human activities by requiring measures to prevent, reduce, or mitigate particulate matter emissions” and to add “To minimize the amount of fugitive dust entrained into the ambient air from non-traditional sources of fugitive dust by requiring measures to prevent, reduce, or mitigate fugitive dust emissions.” To clarify the purpose of Rule 310.01. To introduce/use the term “non-traditional sources of fugitive dust”, in order to identify the types of activities that Rule 310.01 is intended to regulate. Using the term “non-traditional sources of fugitive dust” will reflect that Rule 310.01 regulates more than open areas, vacant lots, unpaved parking lots, and unpaved roadways.

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Section 102: To delete “The provisions of this rule shall apply to open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310-Fugitive Dust of these rules and which do not require a permit nor a Dust Control Plan. In addition, the provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and § 42-12152. The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4” and to add “102.1 The provisions of this rule shall apply to non-traditional sources of fugitive dust that are conducted in Maricopa County, except for those dust generating operations listed in Section 103 of this rule. 102.2 The provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and A.R.S. § 42-12152.” To clarify the applicability of Rule 310.01. To introduce/use the term “non-traditional sources of fugitive dust”, in order to identify the types of activities that Rule 310.01 is intended to regulate. Using the term “non-traditional sources of fugitive dust” will reflect that Rule 310.01 regulates more than open areas, vacant lots, unpaved parking lots, and unpaved roadways.

New Section 103: To change format. To add Exemptions:

103.1 The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4.

103.2 The provisions of this rule shall not apply to dust generating operations that are subject to the standards and/or requirements described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

103.3 The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status.”

103.4 An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in this rule. To move this provision from re-numbered Section 207.

103.5 Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching, performed to establish initial landscapes or to redesign existing landscapes. This provision relates-to new Section 208.

103.6 Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules. To move this provision from re-numbered Section 213.

103.7 Vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot. To move this provision from re-numbered Section 221.

103.8 An unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles. To move this provision from re-numbered Section 231.

New Section 201: To add “Animal Waste - Any animal excretions and mixtures containing animal excretions.” Definition matches definition used in San Joaquin’s Rule 4570-Confined Animal Facilities.

New Section 202: To add “Area A - As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows: Township 8 North, Range 2 East and Range 3 East; Township 7 North, Range 2 West through Range 5 East; Township 6 North, Range 5 West through Range 6 East; Township 5 North, Range 5 West through Range 7 East; Township 4 North, Range 5 West through Range 8 East; Township 3 North, Range 5 West through Range 8 East; Township 2 North, Range 5 West through Range 8 East; Township 1 North, Range 5 West through Range 7 East;

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Township 1 South, Range 5 West through Range 7 East; Township 2 South, Range 5 West through Range 7 East; Township 3 South, Range 5 West through Range 1 East; Township 4 South, Range 5 West through Range 1 East.”

New Section 203: To add “Area Accessible To The Public - Any parking lot or public roadway that is accessible to public travel primarily for purposes unrelated to the dust generating operation.” Definition matches definition in Rule 310.

Re-Numbered Section 204: To change format of definition of bulk material and to list only once materials that are listed twice (i.e., earth and soil).

Section 206: To delete “Feedlots And/Or Livestock Areas - Any area on which an operation directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity exists. To use and define the term “livestock operations.”

Re-Numbered Section 207: To delete “(or material placed thereupon) which” and to add “or material placed on the earth’s surface that”. To delete “thereby increasing the potential for the emission of fugitive dust” and to add “if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification.” To move “For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 300 of this rule” to New Section 103.4. To match definition of disturbed surface area to definition of disturbed surface area in Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(11) In a county with a population of two million or more persons or any portion of a county within an area designated by the Environmental Protection Agency as a serious PM₁₀ nonattainment area or a maintenance area that was designated as a serious PM₁₀ nonattainment area, no later than March 31, 2008, adopt rule provisions, and, no later than October 1, 2008, commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: “Disturbed surface” means a portion of the earth’s surface or material placed on the earth’s surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. Vacant lots do not include any site of disturbed surface area that is subject to a permit issued by the Control Officer that requires control of PM₁₀ emissions from dust generating operations.”

New Section 208: To add “Dust Generating Operation - Any activity capable of generating fugitive dust, including but not limited to, the following activities: 208.1 Land clearing, maintenance, and land cleanup using mechanized equipment 208.2 Earthmoving 208.3 Weed abatement by discing or blading 208.4 Excavating 208.5 Construction 208.6 Demolition 208.7 Bulk material handling (e.g., bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations) 208.8 Storage and/or transporting operations (e.g., open storage piles, bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations) 208.9 Operation of any outdoor equipment 208.10 Operation of motorized machinery 208.11 Establishing and/or using staging areas, parking areas, material storage areas, or access routes to and from a site 208.12 Establishing and/or using unpaved haul/access roads to, from, and within a site 208.13 Disturbed surface areas associated with a site 208.14 Installing initial landscapes using mechanized equipment.” Definition matches definition in Rule 310. New Section 208 relates-to new Section 103.5.

New Section 210: To add “Emergency - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.”

New Section 211: To add “Emergency Activity - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality.”

New Section 212: To add “Feed Lane Access Areas - Roads providing access from the feed preparation areas to and including feed land areas at a livestock activity. These access roads are typically used to distribute feed from feed trucks to the animals.”

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Re-Numbered Section 213: To move “For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules” to New Section 103.6.

New Section 214: To add “Gravel Pad – A layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter, that is maintained at the point of intersection of a paved area accessible to the public and a work site entrance to dislodge mud, dirt, and/or debris from the tires of motor vehicles and/or haul trucks, prior to leaving the work site. A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater.” Definition matches definition used in Rule 310.

New Section 215: To add “Grizzly - A device (i.e., rails, pipes, or grates) used to dislodge mud, dirt, and/or debris from the tires and undercarriage of motor vehicles and/or haul trucks prior to leaving the work site.” Definition matches definition used in Rule 310.

New Section 216: To add “Livestock Activities - Any activity directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity, including but not limited to, livestock arenas, horse arenas, and feed lots.” Definition matches definition used in South Coast’s Rule 1186-PM₁₀ Emissions From Paved And Unpaved Roads And Livestock Operations.

New Section 218: To add “Non-Traditional Source Of Fugitive Dust - A source of fugitive dust that is located at a source that does not require any permit under these rules. The following non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules: 218.1 Vehicle use in open areas and vacant lots; 218.2 Open areas and vacant lots; 218.3 Unpaved parking lots; 218.4 Unpaved roadways (including alleys); 218.5 Livestock activities; 218.6 Erosion-caused deposition of bulk materials onto paved surfaces; 218.7 Easements, rights-of-way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission).” To introduce/use the term “non-traditional sources of fugitive dust”, in order to identify the types of activities that Rule 310.01 is intended to regulate. Using the term “non-traditional sources of fugitive dust” will reflect that Rule 310.01 regulates more than open areas, vacant lots, unpaved parking lots, and unpaved roadways.

Re-Numbered Section 221: To delete “Section 211.1” and to add “Section 221.1.” To delete “Section 211.4” and to add “Section 221.3.” To move “For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot” to New Section 103.7. To delete “adjoining a developed or partially developed residential, industrial, institutional, governmental, or commercial area.” To delete “A tract of land, in the PM₁₀ nonattainment area, adjoining agricultural property.”

New Section 225: To add “Property Line - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.” Definition matches definition used in South Coast’s Rule 403-Fugitive Dust.

New Section 227: To add “Trackout/Carryout – Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public.” Definition matches definition used in Rule 310.

New Section 228: To add “Trackout Control Device - A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved area accessible to the public that controls or prevents vehicular trackout.” Definition matches definition used in Rule 310.

New Section 229: To add Unpaved Access Connections - Any unpaved road connection with a paved public road.” Definition matches definition used in South Coast’s Rule 1186-PM₁₀ Emissions From Paved And Unpaved Roads And Livestock Operations.

Re-Numbered Section 230: To delete “larger than 5,000 square feet” and to add “material handling”, “and equipment”, and “An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.” To change definition of “unpaved parking lot” to match Clark County’s definition of “unpaved parking lot” in Section 92-Fugitive Dust From Unpaved Parking Lots; Material Handling And Storage Yards; And Vehicle And Equipment Storage Yards.

Re-Numbered Section 231: To move “For the purpose of this rule, an unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles” to New Section 103.8. To add “An unpaved roadway (including alleys) includes designated or opened trail systems and service roads regardless of surface composition.”

Re-Numbered Section 232: To delete “Section 211” and to add “Section 220.”

New Section 301: To add “General Requirements For Non-Traditional Sources Of Fugitive Dust: 301.1 An owner and/or operator of a non-traditional source of fugitive dust shall be subject to the standards and/or requirements described in this rule. Failure to comply with any such standards and/or requirements is deemed a violation of this rule. 301.2 When an owner and/or operator of a non-traditional source of fugitive dust fails to stabilize disturbed surfaces of vacant lots as required in Section 302.4 and Section 302.5 of this rule, the Control Officer shall commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: a. Reasonable written notice to the owner or the owner’s authorized agent or the owner’s statutory agent that the unpaved disturbed surface of a vacant lot is required to be stabilized. The notice shall be given not less than 30 days before the day set for compliance and shall include a legal description of the property and the estimated cost to the county for the stabilization if the owner does not comply. The notice shall be either personally served or mailed by certified mail to the owner’s statutory agent, to the owner at the owner’s last known address or to the address to which the tax bill for the property was last mailed. b. Authority to enter upon any said land/property where such non-traditional source of fugitive dust exists/where such disturbed surface area exists and to take remedial and/or corrective action as may be deemed appropriate to cope with and relieve, reduce, remedy, and/or stabilize such non-traditional source of fugitive dust/such disturbed surface area. Any cost incurred in connection with any such remedial or corrective action by the Maricopa County Air Quality Department or any person acting for the Maricopa County Air Quality Department shall be reimbursed by the owner and/or operator of such non-traditional source of fugitive dust.” To clarify the standards to which an owner and/or operator is subject. To match Clark County’s Section 94-Permitting And Dust Control For Construction Activities and Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(11) In a county with a population of two million or more persons or any portion of a county within an area designated by the Environmental Protection Agency as a serious PM₁₀ nonattainment area or a maintenance area that was designated as a serious PM₁₀ nonattainment area, no later than March 31, 2008, adopt rule provisions, and, no later than October 1, 2008, commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following: “Disturbed surface” means a portion of the earth’s surface or material placed on the earth’s surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. Vacant lots do not include any site of disturbed surface area that is subject to a permit issued by the Control Officer that requires control of PM₁₀ emissions from dust generating operations. (a) Reasonable written notice to the owner or the owner’s authorized agent or the owner’s statutory agent that the unpaved disturbed surface of a vacant lot is required to be stabilized. The notice shall be given not less than 30 days before the day set for compliance and shall include a legal description of the property and the estimated cost to the county for the stabilization if the owner does not comply. The notice shall be either personally served or mailed by certified mail to the owner’s statutory agent, to the owner at the owner’s last known address or to the address to which the tax bill for the property was last mailed. (b) Authority for the county to enter the lot to stabilize the disturbed surface at the expense of the owner if the vacant lot has not been stabilized by the day set for compliance. (c) Methods for stabilization of the disturbed surface of the vacant lot, the actual cost of stabilization, and the fine that may be imposed for a violation of this section.

New Section 302: To add “Control Measures For Non-Traditional Sources Of Fugitive Dust.” To clarify the standards for control measures to which an owner and/or operator is subject.

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New Section 302.1: To add “When engaged in the activities described in Section 302.4 through Section 302.10 of this rule, the owner and/or operator of a non-traditional source of fugitive dust shall implement control measures as described in Section 302.4 through Section 302.10 of this rule, as applicable.”

New Section 302.2: To add “Control measures shall be implemented to achieve the visible emissions requirements, as required for each activity and the compliance determination in Section 501 of this rule.”

New Section 302.3: To add “Failure to implement control measures as required by this rule, as applicable, and/or failure to maintain stabilization of a non-traditional source of fugitive dust with adequate surface crusting to prevent wind erosion as measured by the requirements in this rule shall be deemed a violation of this rule.”

Re-Numbered Section 302.4: To change format. To add visible emissions requirements. To describe stabilization limitations in Section 501. To change “If open areas and vacant lots are 0.10 acre or larger and have a cumulative of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 301.1 of this rule within 60 calendar days following the initial discovery of vehicle use on open areas and vacant lots” to “If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed by being driven over and/or used by motor vehicles, by off-road vehicles, or for material dumping, then the owner and/or operator shall implement one or more of the control measures described in Section 302.4(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of disturbance or vehicle use on open areas and vacant lots.” To add posting provisions as a control measure for preventing motor vehicle and/or off-road vehicle trespassing, parking, and/or access: “Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access by posting that consists of one of the following: (a) A sign written in compliance with ordinance(s) of local, County, State, or Federal sign standards. (b) An order of a government land management agency. (c) Most current maps approved by a government land management agency. (d) Virtual posting a government land management agency.”

Re-Numbered Section 302.5: To change format. To add visible emissions requirements. To describe stabilization limitations in Section 501.

Re-Numbered Section 302.5(c)(1): To change “If open areas and vacant lots have 0.5 acre or more of disturbed surface area and remain unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 302.1 of this rule within 60 calendar days following the initial discovery of the disturbance on the open areas and vacant lots” to “If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed and if such disturbed area remains unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator shall implement one or more of the control measures described in Section 302.5(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots.” The specifications (i.e., acreage and square footage dimensions) for when an area would have-to comply with Section 302.5-Open Areas And Vacant Lots are to be revised to match the specifications (i.e., acreage and square footage dimensions) for when an area would have-to comply with Section 302.4-Vehicle Use In Open Areas And Vacant Lots, since both sections address open areas and vacant lots.

Re-Numbered Section 302.6: To change format. To add visible emissions requirements. To describe stabilization limitations in Section 501. To add trackout control device requirement and water as control measures. To add control measures for cleaning-up trackout.

Re-Numbered Section 302.6(c)(1): To change “The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 303.1 of this rule on any surface area(s) of the lot on which vehicles enter, park, and exit. For unpaved parking lots that are utilized intermittently, for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one of the control measures described in Section 303.1 of this rule, during the period that the unpaved parking lots are utilized for vehicle parking” to “The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 302.6(b) of this rule [(i.e., pave; apply dust suppressants other than water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site; uniformly apply and maintain surface gravel; or apply water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces

of motor vehicles that traverse the site.)) on any surface area(s) of the lot on which vehicles enter, park, and exit. (a) If an unpaved parking lot is utilized for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b) of this rule [(i.e., pave; apply dust suppressants other than water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site; uniformly apply and maintain surface gravel; or apply water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site)] during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented. (b) If an unpaved parking lot is utilized for more than 35 days during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b)(1) through Section 302.6(b)(3) of this rule [(i.e., pave; apply dust suppressants other than water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site; or uniformly apply and maintain surface gravel)] during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented.”

Re-Numbered Section 302.6(c)(3): To add “If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout.”

Re-Numbered Section 302.6(c)(4): To add “Parking, maneuvering, ingress, and egress areas at developments other than residential buildings with four or fewer units shall be maintained with one or more of the following dustproof paving methods: (a) Asphaltic concrete. (b) Cement concrete. (c) Penetration treatment of bituminous material and seal coat of bituminous binder and a mineral aggregate. (d) A stabilization method approved in writing by the Control Officer and the Administrator.” To match Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(5) In a county with a population of two million or more persons or any portion of a county in an area designated by the Environmental Protection Agency as a serious PM₁₀ nonattainment area or a maintenance area that was designated as a serious PM₁₀ nonattainment area, no later than March 31, 2008, adopt or amend codes or ordinances and, no later than October 1, 2008, commence enforcement of those codes or ordinances as necessary to require that parking, maneuvering, ingress, and egress areas at developments other than residential buildings with four or fewer units are maintained with one or more of the following dustproof paving methods: (a) Asphaltic concrete. (b) Cement concrete. (c) Penetration treatment of bituminous material and seal coat of bituminous binder and a mineral aggregate. (d) A stabilization method approved by the county.

Re-Numbered Section 302.6(c)(5): To add “Parking, maneuvering, ingress, and egress areas 3,000 square feet or more in size at residential buildings with four or fewer units shall be maintained with a paving or stabilization method authorized by the county by code, ordinance, or permit.” To match Senate Bill 1552. Senate Bill 1552 reads, in part, as follows: A.R.S. § 49-474.01(A)(6) In a county with a population of two million or more persons or any portion of a county in an area designated by the Environmental Protection Agency as a serious PM₁₀ nonattainment area or a maintenance area that was designated as a serious PM₁₀ nonattainment area, no later than March 31, 2008, adopt or amend codes or ordinances and, no later than October 1, 2009, commence enforcement of those codes or ordinances as necessary to require that parking, maneuvering, ingress, and egress areas 3,000 square feet or more in size at residential buildings with four or fewer units are maintained with a paving or stabilization method authorized by the county by code, ordinance, or permit.

Re-Numbered Section 302.7: To change format. To describe stabilization limitations in Section 501. To add requirement to conduct vehicle counts/traffic counts.

New Section 302.7(c)(2): To add “A person, who allows 150 vehicle trips or more per day to use an unpaved roadway (including an alley) in the PM₁₀ nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an unpaved roadway (including an alley). Two separate 24-hour traffic counts shall be conducted. The average vehicle counts/traffic counts on the highest trafficked days shall be recorded and provided to the Control Officer in writing within 60 days of verbal or written request by the Control Officer.”

New Section 302.7(c)(3)(b): Control measure(s) shall be considered effectively implemented under the following conditions: (b) When one of the control measures described in Section 302.7(b) of this rule is implemented on 5 miles of unpaved roadways (including alleys) having vehicle traffic of 150 vehicle trips or more per day within one calendar year beginning in calendar year of 2008. If the control measure described in Section 302.7(b)(2) of this rule is implemented, the unpaved roadways (including alleys) must be maintained so as to comply with Appendix C of these rules.”

Re-Numbered Section 302.8: To change format. To add visible emissions requirements. To describe stabilization limitations in Section 501. To add control measures for cleaning-up trackout. To change “feedlots and/or livestock areas” to “livestock activities.”

New Section 302.8(b): To add “Control Measures: (1) For unpaved access connections: (a) Apply and maintain dust suppressants other than water; or (b) Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase. (2) For unpaved feed lane access areas: (a) Apply and maintain dust suppressants other than water; or (b) Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase. (3) For bulk material hauling, including animal waste, off-site and crossing and/or accessing a paved area accessible to the public: (a) Load all vehicles used to haul bulk material, including animal waste, such that the freeboard is not less than three inches; (b) Prevent spillage or loss of bulk material, including animal waste, from holes or other openings in the cargo compartment’s floor, sides, and/or tailgate(s); (c) Cover cargo compartment with a tarp or other suitable closure; and (d) Install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site. (4) For corrals, pens, and arenas: (a) Apply water; or (b) Install shrubs and/or trees within 50 feet to 100 feet of corrals, pens, and arenas.”

New Section 302.8(c)(3): To add “If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout.”

Re-Numbered Section 302.9: To change format.

Re-Numbered Section 302.9(b): To delete “Opacity Limitation: For the purpose of this rule, control measures shall be considered effectively implemented when opacity observations for fugitive dust emissions from erosion-caused deposition of bulk materials onto paved surfaces do not exceed 20% opacity, as described in Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules” and to add “Additional Requirements: (1) In the event that erosion-caused deposition of bulk materials or other materials occurs on any adjacent paved roadway, paved parking lot, curb, gutter, or sidewalk, the owner and/or operator of the property from which the deposition eroded shall implement both of the control measures described in Section 302.9(a) of this rule. (2) Failure to comply with both of the control measures described in Section 302.9(a) of this rule shall constitute a violation of this rule.”

Re-Numbered Section 302.10: To change format. To add requirement to conduct vehicle counts/traffic counts. To add control measure “install locked gates at each entry point”. To describe stabilization limitations in Section 501. To change heading “Easements, Rights-Of-Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water, And Gas Transmission)” to “Easements, Rights-Of-Way, And Access Roads For Utilities (Transmission Of Electricity, Natural Gas, Oil, Water, And Gas).” To change “If an owner and/or operator allows 150 vehicles or more per day to use an easement, right-of-way, and access road for utilities (electricity, natural gas, oil, water, and gas transmission) in the PM10 nonattainment area, then such owner and/or operator shall first implement one of the control measures described in Section 307.1 of this rule” to “The owner and/or operator of a non-traditional source of fugitive dust that involves easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas) that are used by 130 vehicle trips or more per day in Area A shall be subject to the stabilization requirements described in Section 302.10(a) of this rule and unless otherwise specified and/or required, comply with one of the control measures described in Section 302.10(b) of this rule and the additional requirements described in Section 302.10(c) of this rule.”

Re-Numbered Section 302.10(b)(2): To change “Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 307.2 of this rule” to “Control Measures: (2) Apply dust suppressants other than water.”

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New Section 302.10(b)(4): To add “Control Measures: (4) Install locked gates at each entry point.”

Re-Numbered Section 302.10(c): To change “For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from easements, rights-of-way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission) do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules: a. Silt loading is not equal to or greater than 0.33 oz/ft²; or b. Silt content does not exceed 6%” to “Additional Requirements: (1) If an owner and/or operator allows 130 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in Area A, then such owner and/or operator shall first implement one of the control measures described in Section 302.10(b) of this rule. (2) A person, who allows 130 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in Area A, shall be responsible for conducting vehicle counts/traffic counts to determine if 130 vehicle trips or more per day occur on an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas). Such person shall provide to the Control Officer written results of such vehicle counts/traffic counts within 60 days of verbal or written request by the Control Officer. (3) Control measure(s) shall be considered effectively implemented when the easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) achieves the compliance determinations described in Section 501 of this rule.”

Section 501: To add opacity observations. To change title of test method referenced in Appendix C, Section 2.3 to “Test Methods For Stabilization-Soil Crust Determination -The Drop Ball Test. To match Clark County’s Section 94-Permitting And Dust Control For Construction Activities. To delete “Stabilization Observations” and to add “Compliance Determination: To determine compliance with this rule, the following test methods shall be followed.”

New Section 501.1: To add “Opacity Observations: a. Opacity observations to measure visible emissions shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations). Emissions shall not exceed the applicable opacity standards of this rule for a period aggregating more than three minutes in any 60-minute period. b. Opacity observations to determine compliance with Sections 302.4, 302.6, 302.7, 302.8(a)(1), 302.8(a)(2), and 302.10 of this rule shall be conducted in accordance with the techniques specified in Appendix C (Fugitive Dust Test Methods) of these rules.”

Re-Numbered Section 501.3(a): To delete “visible” and to add “soil.” To delete “/Steel Ball.”

Section 502: To delete “within” and to add “as soon as possible but no later than.”

Section 503: To delete “one year” and to add “two years.”

Appendix C-Fugitive Dust Test Methods:

Section 2.2: To delete “and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results.”

Section 2.3: To change heading “Visible Crust Determination” to “Soil Crust Determination (The Drop Ball Test).”

Section 2.3.1: To delete “where a visible crust exists, drop” and to add “drop”. To add “(0.56-0.60 ounce).” To delete “30 centimeters (one foot)” and to add “one-foot.” To delete “visible crust test method” and to add “Drop Ball Test.” To add “or project site”. To delete “which” and to add “that.” To delete “vacant lot.” To add “Determination Of Threshold Friction Velocity (TFV).”

Section 2.3.3: To add “Randomly select each representative disturbed surface for the Drop Ball Test by using a blind “over the shoulder” toss of a throwable object (e.g., a metal weight with survey tape attached). Using the point of fall as the lower left-hand corner, measure a one-foot square area.” To delete “a survey area that measures 1 foot by 1 foot and that represents a random portion of the overall disturbed conditions of the site” and to add “the one-foot by one-foot square survey area, using a consistent pattern across the survey area.” To delete “Visible Crust Determination” and to add “Drop Ball Test.”

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Section 2.3.4: To delete “visible crust test” and to add “Drop Ball Test.” To delete “random.” To add “using the random selection method set forth in subsection 2.3.3 of this appendix.”

Section 3: To change heading “Time Average Methods Of Visual Opacity Determination Of Emissions From Dust Generating Operations” to “Visual Opacity Determination Of Emissions From Dust Generating Operations.”

Section 3.1: To delete “A time average regulation is any regulation that requires averaging visible emission data to determine the opacity of visible emissions over a specific time period.”

Section 3.3.1: To delete “Procedures For Emissions From Stationary Sources. These procedures are not applicable to this section.”

Re-Numbered Section 3.3.1(f): To delete “with the opacity standard described in Rule 310 of these rules.”

Re-Numbered Section 3.3.2(g): To delete “with the opacity standard described in Rule 310 of these rules.”

Section 4: To add heading “Visual Opacity Determination Of Emissions From Livestock Activities-Corrals, Pens, And Arenas.”

Section 4.1: To add “Applicability. This method is applicable for the determination of opacity of fugitive dust plumes from livestock activities-corrals, pens, and arenas.”

Section 4.2: To add “Principle. The opacity of emissions from livestock activities-corrals, pens, and arenas is determined visually by an observer qualified according to Section 3.4 of this appendix.”

Section 4.3: To add “Procedures. An observer qualified, in accordance with Section 3.4 of this appendix, shall use the following procedures for visually determining the opacity of emissions:”

Section 4.3.1: To add: “Position. Stand at a position at least 5 meters from the livestock activities-corrals, pens, and arenas in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Consistent as much as possible with maintaining the above requirements, make opacity observations from a position such that the line of sight is approximately perpendicular to the plume and wind direction. As much as possible, if multiple plumes are involved, do not include more than one plume in the line of sight at one time.”

Section 4.3.2: To add “Field Records. Record the name of the site, method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the livestock activity-corrals, pens, and arenas. Also, record the time, estimated distance to the livestock activity-corrals, pens, and arenas location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position relative to the livestock activity-corrals, pens, and arenas, and color of the plume and type of background on the visible emission observation from when opacity readings are initiated and completed.”

Section 4.3.3: To add “Observations. Make opacity observations, to the extent possible, using a contrasting background. For storage piles, make opacity observations approximately 1 meter above the surface from which the plume is generated. The initial observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume, but instead observe the plume momentarily at 15-second intervals.”

Section 4.3.4: To add “Recording Observations. Record the opacity observations to the nearest 5% every 15 seconds on an observational record sheet. If a multiple plume exists at the time of an observation, do not record an opacity reading. Mark an “x” for that reading. If the livestock activity-corrals, pens, and arenas ceases operating, mark an “x” for the 15-second interval reading. Readings identified as “x” shall be considered interrupted readings.”

Section 4.3.5: To add “Data Reduction. Within any 60-minute period, count at least three minutes that are greater than 20% opacity. If at least 13 readings are greater than 20% opacity, the livestock activity-corrals, pens, and arenas is not in compliance. Readings immediately preceding and following interrupted readings shall be deemed consecutive and in no case shall two sets overlap, resulting in multiple violations.”

6. Demonstration of compliance with A.R.S. § 49-112:

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Under A.R.S. § 49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the requirements of A.R.S. § 49-112.

A.R.S. § 49-112 (A)

When authorized by law, a county may adopt a rule, ordinance, or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition;
2. There is credible evidence that the rule, ordinance or other regulation is either:
 - (a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible
 - (b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule, ordinance or other regulation is equivalent to federal statutes or regulations.

The County is proposing to revise Rules 200, 310, 310.01 and Appendix C in order to address a peculiar local condition: EPA's finding that the Phoenix Nonattainment Area did not attain the 24-hour PM₁₀ standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007). The Phoenix Nonattainment Area is the only nonattainment area designated serious for PM₁₀ in Arizona. Consequently stronger regulations must be adopted in this area to address a serious health threat. Under Section 189(d) of the CAA, serious PM₁₀ nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, "plan revisions which provide for attainment of the PM₁₀ air quality standard and, from the date of such submission until attainment, for an annual reduction in PM₁₀ or PM₁₀ precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area." In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM₁₀ by December 31, 2007. The Phoenix Nonattainment Area is one of three areas in the entire country for which EPA has issued a finding that Section 189(d) has been triggered. Because of this, the revision complies with A.R.S. § 49-112 (A)(1) and A.R.S. § 49-112 (A) (2).

In addition, several of the proposed revisions are required to by A.R.S. § 49-474.01(A)(5, 6 and 11), 49-474.05 and 49-474.06 recently enacted in Senate Bill 1552. Therefore, a demonstration of compliance with A.R.S. § 49-112 as required by the County's general grant of rulemaking and ordinance authority in A.R.S. § 49-479 does not apply to those proposed rule provisions.

7. A reference to any study relevant to the rule that the agency reviewed and either proposes to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

ADEQ, 2004. "Summary of economic, small business, and consumer impact". Contained in: Notice of Final Rulemaking, Maricopa County Rule 325: Brick and Structural Clay Products (BSCP) Manufacturing. Arizona Administrative Register, Vol. 11, Issue 37, Sep. 9, 2005.

ADHS, 2002. Arizona Department of Health Services, Asthma Control Program, Office of Nutrition and Chronic Disease Prevention Services, Phoenix, AZ: Oct. 2002.

American Lung Association, 2003. Trends in Chronic Bronchitis and Emphysema: Morbidity and Mortality. Epidemiology and Statistics Unit, Research and Scientific Affairs, Washington, DC: March 2003.

Sierra Research, Inc., 2007. Analysis of Particulate Control Measure Cost Effectiveness. Document prepared for Maricopa Association of Governments, Phoenix AZ: April 2007.

STAPPA/ALAPCO, 1996. Controlling Particulate Matter Under the Clean Air Act: A Menu of Options.

State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO), Washington, DC: July 1996.

U.S. EPA, 1999a. "Human Health Effects of Criteria Pollutants." Chapter 5 in The Benefits and Costs of the Clean Air Act 1990 to 2010, Report to Congress, Washington, DC: Nov.1999.

U.S. EPA, 1999b. "Economic Valuation of Human Health Effects." Chapter 6 in The Benefits and Costs of the Clean Air Act 1990 to 2010, Report to Congress, Washington, DC: Nov.1999.

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8. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision:

Not applicable

9. The preliminary summary of the economic, small business, and consumer impact:

9.1 Summary

The Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 200, Rule 310, Rule 310.01, and Appendix C. As required by A.R.S. § 41-1055, this economic, small business and consumer impact statement includes a discussion of the persons most likely to be impacted by the proposed rules, along with a cost-benefit analysis of the proposed rules' probable impact on MCAQD as the implementing agency and other public agencies, other political subdivisions of the state, and businesses affected by the proposed rulemaking. Where data are unavailable or highly uncertain, this statement discusses the limitations of the data, the methods used to develop qualitative and/or quantitative estimates, and attempts to characterize all probable impacts in qualitative terms.

To submit or request additional data on the information included in the economic, small business and consumer impact statement, please contact:

Johanna Kuspert or Jo Crumbaker

Planning and Analysis Division

Maricopa County Air Quality Department

1001 N. Central Ave. Suite 595

Phoenix, AZ 85004

jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

9.2 Identification of the proposed rule making

Each proposed change to these rules are described in detail under Item 5 above. While some changes are primarily administrative in nature, or designed to clarify existing County air quality rules, a subset of the proposed rule changes have been deemed to have potentially significant economic impacts, and are thus explicitly addressed in this Economic Impact Statement (EIS). These rule changes, and the relevant sections, include:

- Subcontractor Registration: Rule 200, § 306
- Unpaved Parking Lots: Rule 310, § 233 and Rule 310.01, § 230
- Visible Emissions Beyond Property Line:
 - Dust Generating Operations: Rule 310, § 303
 - Vehicle Use in Open Areas and Vacant Lots: Rule 310.01, § 302.4
 - Open Areas and Vacant Lots: Rule 310.01, § 302.5
 - Unpaved Parking Lots: Rule 310.01, § 302.6
 - Livestock Activities: Rule 310.01, § 302.8
- Cumulative Trackout Limit of 25 Feet:
 - Dust Generating Operations: Rule 310, § 306
 - Unpaved Parking Lots: Rule 310.01, § 302.6
 - Livestock Activities: Rule 310.01, § 302.8
- Dust Control Training Classes
 - Basic: Rule 310, § 309.1
 - Comprehensive: Rule 310, § 309.2
- Unpaved Roadways: Rule 310.01, § 302.7
- Trackout Control Devices:
 - Unpaved Parking Lots: Rule 310.01, § 302.6
 - Livestock Activities: Rule 310.01, § 302.8
- Control Measure Options for Easements and Rights of Way: Rule 310.01, § 302.10
- Visible Emission Limits for Livestock Activities: Rule 310.01, § 302.8

9.3 Entities Expected to Be Affected by, Bear the Costs of, or Directly Benefit from the Proposed Rule Making

Rule 200, § 306: Subcontractor Registration: It is estimated that up to 10,000 subcontractors would be subject to the proposed registration requirement. This figure includes those individuals and entities involved in performing ancillary services (including but not limited to: site foremen/supervisors, superintendents, truck drivers, initial grading, excavation, pouring concrete/footings, landscapers, utility installation, framers, drywall installation, electricians,

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swimming pool installers, et al.) that perform work on a permitted site. In addition, MCAQD, as the implementing agency, will incur costs for the for the design, implementation, and administration of this program.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: With the elimination of the 5000-square-foot size criterion under these rules, all owners of unpaved parking lots of any size would be required to meet the requirements of the proposed rules.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: Owners of unpaved parking lots, open areas, vacant lots, and areas containing livestock activities will bear the costs of implementing required control measures required to prevent no visible emissions beyond the property line.

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: Owners of unpaved parking lots and areas containing livestock activities will bear the costs of monitoring, implementing immediate clean-up measures, and repairing/replacing control measures when trackout extends a cumulative distance of 25 linear feet or more.

Rule 310, §§ 309.1 and 309.2: Basic and Comprehensive Dust Control Training Classes: Those entities (individuals, corporations, or other organizations) currently required to obtain a dust control permit for earthmoving activities within Maricopa County are the groups that would be directly affected by the proposed introduction of a requirement to attend a basic or comprehensive dust control class. In addition, the implementing agency (MCAQD) will be responsible for the design, implementation, and administration of this program.

Rule 310.01, § 302.7: Unpaved Roadways: Owners of a non-traditional source of fugitive dust that involves unpaved roadways will bear the cost of conducting and documenting vehicle/traffic counts and ensuring that the unpaved roadways are used for less than 150 vehicle trips per day.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: Owners of unpaved parking lots and livestock activities will bear the cost of installing trackout control devices as an optional control measure to comply with the requirements of the proposed rules.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: Owners of easements, right-of-way, and access roads for utilities who choose to install locked gates as a control measure option will bear the costs associated with this option.

Rule 310.01, § 302.8: Visible Emission Limits for Livestock Activities: There should be no significant additional costs associated with the use of the aggregate number of 15-second observations which exceed the 20 percent opacity standard.

9.4 Cost-benefit analysis

9.4.1 The probable costs and benefits to the implementing agency and other agencies directly affected by the implementation and enforcement of the proposed rule making

Rule 200, § 306: Subcontractor Registration: The Maricopa County Air Quality Department will require four additional permit technicians to administer the subcontractor registration program. The direct annual costs associated with four additional permit technicians, as well as database maintenance personnel are estimated to be \$232,000. Annual costs of administering the program (including database development and maintenance, consumables, etc.) are estimated to be \$88,000. Total agency costs, including the allotment of overhead costs (for administrative, financial, cashing personnel etc.) are estimated at \$444,500.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: The elimination of the 5000-square-foot size criterion will not have a direct impact on the MCAQD workload associated with inspections of unpaved parking lots. MCAQD committed to begin proactive inspections of unpaved parking lots because this was on the list of suggested county-implemented measures (MAG measure 31) to reduce PM₁₀ emissions. As a result, the Maricopa County Air Quality Department committed to conduct proactive and complaint-based inspections of existing parking lots located within unincorporated areas of Maricopa County. The department will hire four dust control vacant lot compliance inspectors to conduct proactive and complaint-based inspection of parking lots within the unincorporated areas. The annual costs associated with four additional dust control vacant lot inspectors are estimated to be \$255,000. One-time costs are estimated to be \$82,000. The Maricopa County Planning and Development Department also estimated that five drainage

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plan reviewers will be required to perform drainage reviews of parcels requiring dustproof paving. Annual costs associated with five additional drainage plan reviewer are estimated at an annual cost of \$378,000, and one-time costs are estimated to be \$93,000.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: A workload analysis was conducted by the MCAQD Planning and Analysis Division and it was determined that dust inspection labor time will not appreciably increase from the additional requirement that no visible emissions be allowed beyond the property line. Based on this analysis, the proposed rule change should yield no additional costs for MCAQD or any other agency.

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: Since the existing rules already contain immediate clean-up and control measure replacement/repair requirements for a cumulative trackout distance criterion of 50 feet, there should not be any cost increases to MCAQD or any other agency in association with the decrease in cumulative distance criteria to 25 feet.

Rule 310, § 309.1 and 309.2: Basic and Comprehensive Dust Control Training Classes: Maricopa County will hire four additional FTEs to coordinate and conduct dust control training. Annual costs associated with the four additional FTEs, database maintenance, training materials, and room rental are estimated to be \$382,000. One-time costs are estimated to be \$460,000 for database development, equipment costs, and training materials.

Rule 310.01, § 302.7: Unpaved Roadways: The current rules for unpaved roads already have provisions for required implementation of control measures based on the threshold criterion of 150 vehicles per day. The proposed rule reduces the unpaved road use criterion to 130 vehicles or more per day and requires formal, documented traffic counts. There should be minimal additional cost to Maricopa County to ensure that required traffic counts are conducted and properly documented for applicable unpaved roadways. Compliance with the proposed rule change can be assured by MCAQD during the normal dust inspection process. There should be no additional costs to any other agencies associated with this proposed rule change.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: The addition of a trackout control device as a possible control measure to ensure compliance with all visible emissions requirements under these rules should not yield increased cost for Maricopa County or any other agencies.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: The addition of the control measure option to install locked gates at entry points under this rule should not yield any increased costs to MCAQD or any other agencies.

Rule 310.01, § 302.8 Visible Emission Limits for Livestock Activities: There should be no additional cost to MCAQD or any other agency in association with the use of the aggregate number of 15-second observations which exceed the 20 percent opacity standard.

9.4.2 Probable costs and benefits to other political subdivisions of the state

It is assumed that the only potential impact on other agencies and other political subdivisions of the state would be in a limited number of instances where these entities are themselves permit holders for activities regulated under the proposed rule(s). As this occurs rather infrequently and these permits comprise only a small fraction of all regulated activity under the proposed rule(s), it is anticipated that compliance with the proposed rules will impose no significant economic impact on any other agency or political subdivision of the state.

9.4.3 Probable costs and benefits to businesses directly affected by the proposed rule making

Rule 200, § 306: Subcontractor Registration: It is anticipated that the MCAQD subcontractor registration fee will be \$50. In addition, time to complete and submit the forms, and the associated recordkeeping will average 1.5 hours per registrant. Assuming an average wage of \$25/hour, the indirect costs of registering under this program would be \$37.50, for a total cost per registrant of \$87.50, and a total cost on businesses of all sizes impacted by this rule of \$875,000.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: With the elimination of the minimum size criterion under these rules, all owners of unpaved parking lots will bear the costs of implementing control measures to meet all new/revised requirements for unpaved parking lots under Rule 310 and Rule 310.01. Implementation of control measures

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to prohibit visible emissions beyond the property line and require immediate clean-up of trackout (including repairing or changing control measures to eliminate trackout) which extends a cumulative distance of 25 feet or more. The discussion of possible cost impacts of these proposed requirements for all unpaved parking lots is included below.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: Owners of unpaved parking lots, open areas and vacant lots, and livestock activities will be required to implement control measures to prevent visible emissions beyond the property line. Estimated costs will vary depending on the type and number of control measures required to prevent visible emissions beyond the property line. Annualized costs for implementing each possible control measure under each applicable section have not been fully developed at this time, however some preliminary cost data for control measures under the various rule sections are provided below.

Annualized costs for the installation of a rock barrier as a possible control measure under § 302.4 have been estimated to be approximately \$1,340 per vacant lot per year with installation costs estimated to be approximately \$11,400 for a three acre parcel of land (Sierra Research, 2007).

The possible range of annualized control measure costs for unpaved parking lots (based on a 0.1 acre parking lot) for reducing visible emissions under the proposed rule changes is expected to range from as low as \$100 per parking lot per year (assumes annual subgrade preparation and polymer emulsion application) for application of a dust palliative to as high as \$1,700 per parking lot per year for paving of the parking lot (based on total construction cost of \$15,400 and a useful life of 25 years).

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: The existing rules already contain immediate clean-up and control measure replacement/repair requirements for a trackout distance criterion of 50 feet. The revised rules include a clarification of the trackout distance criteria as being cumulative distance for all entrance and exit points. It is difficult to ascertain whether the reduction in the trackout distance criteria will affect a larger number of businesses or if the number of affected businesses will be the same. The cost associated with immediate clean-up is not expected to be prohibitive. Changes or additions to the control measures required to prevent trackout from extending a cumulative distance of 25 feet will fall into the range of costs discussed above for the proposed control measures necessary to prevent visible emissions beyond the property line.

Rule 310, § 309.1: Basic Dust Control Training Class: It is anticipated that the MCAQD fee for the basic dust control training class will be \$25. Each attendee will spend 4 hours in class, plus an estimated 1.5 hours for travel time, recordkeeping, etc. Assuming an average wage of \$24.23/hour, the indirect costs of registering under this program would be \$133.27, for a total cost per registrant of \$158.27, and a total cost on businesses of all sizes impacted by this rule of \$1,635,879.

Rule 310, § 309.1 Comprehensive Dust Control Training Class: It is anticipated that the MCAQD fee for the comprehensive dust control training class will be \$50. Each attendee will spend 8 hours in class, plus an estimated 1.5 hours for travel time, recordkeeping, etc. Assuming an average wage of \$29.27/hour, the indirect costs of registering under this program would be \$278.07, for a total cost per registrant of \$328.07, and a total cost on businesses of all sizes impacted by this rule of \$654,162.

Rule 310.01, § 302.7: Unpaved Roadways: The current rules for unpaved roads already have provisions for required implementation of control measures based on the threshold criterion of 150 vehicles per day. The proposed rule requires formal, documented traffic counts if an unpaved roadway is used for 150 vehicle trips or more per day.

Based on rough estimates obtained from the Maricopa County Department of Transportation (MCDOT), the estimated daily cost to conduct traffic counts will be approximately \$85 per road per count. It is assumed that conducting the traffic counts will require approximately 4 hours of total labor each day to both place and remove a bi-directional traffic counting cord. MCAQD welcomes interested stakeholders to provide relevant cost information where available.

Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: Owners of unpaved parking lots and livestock activities may have to bear the cost of installing trackout control devices as a required control measure. A trackout control device is one of several possible control measures that owners can implement in order to comply with all requirements under §§ 302.6 and 302.8, but is not mandatory. Possible trackout control devices include: a gravel pad, a grizzly, a wheel wash system, or a paved area. It is expected that the cost of these trackout control devices will fall within the range of costs specified for possible control measures to be used to prevent visible emissions beyond the property line.

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Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: Owners of easements, rights-of-way, and access roads for utilities will bear the cost of installing locked gates as a possible control measure under this rule. The annualized cost for installing an individual locked gate at an entry point is expected to be no more \$150 per year based on a total installation cost of \$1,500 and a useful life of at least 10 years.

Rule 310.01, § 302.8 Visible Emission Limits for Livestock Activities: There should be no additional cost associated with the use of the aggregate number of 15-second observations which exceed the 20 percent opacity standard.

9.5 Impact on private and public employment

In cases where estimates of increased workloads and anticipated additional staff (FTE's) required for MCAQD to design, implement, and administer the proposed programs have been quantified individually in section 9.4.1 above. Since Maricopa County will be the implementing entity for these programs, no other significant impacts on public-sector employment of other agencies or political subdivisions of the state are anticipated.

The potential financial impacts on permit holders (businesses and individuals), on a per-case basis, and cumulative impacts on all permit holders, have been described and quantified, insofar as possible, in section 9.4.3 above.

Rule 200, § 306: Subcontractor Registration: Since a single business entity (corporation, LLC, individual, etc.) only requires a single registration, no impact on private employment is anticipated. The only direct effect on employment will be the four additional permit technicians anticipated to be required by implementation of this rule.

Rule 310, § 233 and Rule 310.01, § 230: Unpaved Parking Lots: As discussed above, all owners of unpaved parking lots will bear the costs of implementing control measures to meet proposed visibility and trackout requirements for unpaved parking lots. Very rough cost impacts were estimated and presented for the businesses directly affected by the proposed rule changes. The affected businesses may be forced to offset any additional costs incurred in order to comply with the proposed rules. Based on the cost data presented above, MCAQD does not have sufficient data at this time to quantitatively evaluate potential employment impacts for businesses impacted by the proposed rule.

Rule 310, § 303 and Rule 310.01, §§ 302.4, 302.5, 302.6, and 302.8: Visible Emissions Beyond Property Line: Costs associated with achieving zero visible emissions beyond the property line through the use of one or more control measures may affect employment for the various owners/operators of the applicable fugitive dust source areas under the proposed rule changes. MCAQD does not have sufficient data at this time to quantitatively evaluate potential employment impacts for businesses directly affected by the proposed requirements.

Enforcing the visible emissions requirement beyond the property line will require some additional labor time for MCAQD dust inspectors, but the amount of labor time is not expected to dramatically affect the number of full-time employees required to complete the required dust inspection backlog. Employment at political subdivisions of the state are not expected to be affected by the proposed rulemaking.

Rule 310, § 306 and Rule 310.01, §§ 302.6 and 302.8: Cumulative Trackout Limit of 25 Feet: Since the existing rules already contain immediate clean-up and control measure replacement/repair requirements for a trackout distance criterion of 50 feet, there should be no impact on employment associated with the proposed rule change.

Rule 310, §§ 309.1 and 309.2: Basic and Comprehensive Dust Control Training Classes: It is anticipated that MCAQD, as the implementing agency, will require approximately 2.2 additional FTE's to oversee and implement these programs. MCAQD is currently in the planning stages to certify other third-party entities to conduct these training programs, so some additional private-sector employment impact is likely, but this impact cannot yet be quantified precisely.

Rule 310.01, § 302.7: Unpaved Roadways: The current rules for unpaved roadways already have provisions for required implementation of control measures based on the threshold criterion of 150 vehicles per day. The proposed rules revisions require formal, documented traffic counts if unpaved roadways are used for 150 vehicle trips or more per day. Employment may be effected by businesses required to bear the cost of implementing a traffic counting system and documenting the traffic count results. Sufficient data does not exist to determine precise employment impacts based on the cost impacts presented above.

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Rule 310.01, §§ 302.6 and 302.8: Trackout Control Devices: As stated above, owners of unpaved parking lots and livestock activities may have to bear the cost of installing trackout control devices as a required control measure to comply with the requirements of §§ 302.6 and 302.8. It is one of several possible control measure options, but is not a mandatory control option. The inclusion of a trackout control device as one of the possible control options should not have an effect on employment for affected businesses, implementing agencies, or political subdivisions of the state.

Rule 310.01, § 302.10: Control Measure Options for Easements and Rights of Way: Owners of easements, right-of-way, and access roads for utilities will bear the cost of installing locked gates as a possible control measure under this rule. This is only one of the possible control measures under this rule and is not cost prohibitive based on the data provided above. Costs to affected businesses will not be appreciably increased under this proposed addition to the rule; therefore, employment should not be impacted at any businesses directly impacted by this rule. Employment at agencies and political subdivisions of the state should not be impacted by this proposed rule change.

Rule 310.01, § 302.8 Visible Emission Limits for Livestock Activities: Since no additional costs will be incurred by any party as a result of the change in the opacity calculation methodology, employment will not be affected at any businesses, agencies or political subdivisions of the state.

9.6 Probable Impact of the Proposed Rule Making on Small Businesses

For all proposed rule changes discussed in this analysis, a description of affected entities of all sizes is contained in Section 9.3 above. Due to constraints in time, available resources, and readily accessible current data, no reliable estimates on the separate impact on small businesses have yet been developed.

9.6.1 Alternative Methods Considered to Reduce Impact on Small Business

Rule 200, § 306: Subcontractor Registration: No alternatives considered; the parameters of the proposed program have been developed to comply with A.R.S. 49-474.06.

Rule 310, §§ 309.1 and 309.2: Basic and Comprehensive Dust Control Training Programs: The proposed rulemaking imposes permitting and training requirements only on earthmoving projects greater than 0.1 acres (4,356 sq. ft.), as does the current version of the rule(s). Thus all projects below this minimum size threshold are exempt from the requirements of the proposed rule, limiting the financial and administrative burden for very small projects. As little or no relevant information is available, no attempt has been made to quantify the number of projects under this size threshold, or to estimate the increase in costs (additional inspectors and enforcement personnel) that would be required to apply the proposed rules to earthmoving activities of less than 0.1 acres. No other alternatives have been considered; the parameters of the proposed programs have been prepared to comply with A.R.S. 49-474.05.

9.6.2 Probable Cost and Benefit to Private Persons and Consumers

All proposed changes to Rules 310 and 310.01 are designed to reduce particulate matter emissions with the ultimate goal of protecting the public health and welfare by attaining PM₁₀ and PM_{2.5} National Ambient Air Quality Standards (NAAQS) throughout Maricopa County. A detailed description of the benefits for the public at large are excerpted from a cost analysis conducted by ADEQ (2004) and is provided below.

Improvement in air quality will generate cost-saving benefits by avoiding adverse-health effects, such as emergency room visits, hospital admissions, acute pediatric bronchitis, chronic adult bronchitis, acute respiratory symptom days, and even premature death. Potential benefits arising from a reduction PM and other pollutants emitted into the atmosphere can be inferred from data associated with the reduction of any airborne Particulate Matter (PM).

Some of health effects of human exposure to PM can be quantified while others cannot. Quantified adverse-health effects include: mortality, bronchitis (chronic and acute), new asthma cases, hospital admissions (respiratory and cardiovascular), emergency room visits for asthma, lower and upper respiratory illness, shortness of breath, respiratory symptoms, minor restricted activity days, days of work loss, moderate or worse asthma status of asthmatics. Unquantifiable adverse-health effects include: neonatal mortality, changes in pulmonary function, chronic respiratory diseases (other than chronic bronchitis), morphological changes, altered host defense mechanisms, cancer, and non-asthma respiratory emergency room visits (U.S. EPA, 1999a).

Epidemiological evidence shows that particulates have negative health impacts in a variety of ways, including: increased mortality and morbidity; more frequent hospital admissions, emergency room and clinician visits; increased need and demand for medication; and lost time from work and school. There is also increasing evidence that ambient air pollution

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can precipitate acute cardiac episodes, such as angina pectoris, cardiac arrhythmia, and myocardial infraction, although the majority of PM-related deaths are attributed to cardiovascular disease (The U.S. EPA's PM Health Effects Research Center Program, prepared by PM Centers Program staff, January 2002).

New evidence also links exposure to ambient PM concentrations to airway inflammation that in turn produces systemic effects, such as acute phase response with increased blood viscosity and coagulability, as well as increased risk of myocardial infraction in patients with coronary artery disease. Chronic effects of repeated airway inflammation may also cause airway remodeling, leading to irreversible lung disease. Individuals with asthma and chronic obstructive pulmonary disease may be at even higher risk from repeated exposure to particulates, according to the U.S. EPA's PM Health Effects Research Center Program.

The Health Effects Institute confirmed the existence of a link between particulate matter and human disease and death (premature mortality). The data revealed that long-term average mortality rates, even after accounting for the effects of other health effects, were 17-26% higher in cities with higher levels of airborne PM (Health Effects of Particulate Air Pollution: What Does The Science Say Hearing before the Committee on Science, House of Representatives, 107th Congress of the U.S., second session, May 8, 2002). Data further reveal that every 10-microgram increase in fine particulates per cubic meter produces a 6% increase in the risk of death by cardiopulmonary disease, and an 8% increase for lung cancer. Even very low concentrations of PM can increase the risk of early death, particularly in elderly populations with preexisting cardiopulmonary disease (STAPPA/ALAPCO, 1996).

In 2002 alone, chronic obstructive pulmonary disease cost the U.S. more than \$32 million, a sum not including costs attributable to asthma (American Lung Association, 2003). In Arizona, deaths attributable to asthma have equaled or exceeded national rates from 1991-1998. In 1998, some 316,200 Arizonans suffered breathing discomfort or asthma related stress (ADHS, 2002).

The MCAQD expects that a reduction in PM potentially will create commensurate cost-saving benefits to the general public by contributing towards reducing these emissions-related health problems. The proposed Maricopa County rulemaking will help improve the general quality of life for the citizens of Maricopa County, particularly those residing near sources that have reduced PM emissions and other air pollutants associated with the manufacturing processes.

Health benefits can be expressed as avoided cases of PM related-health effects and assigned a dollar value. EPA used an average estimate of value for each adverse-health effect of criteria air pollutants. Table 1 contains valuation estimates from the literature reported in dollars per case reduced. For example, the table shows a value of \$401,000 (in 2006 dollars) per case of chronic bronchitis avoided.

Table 1. Monetized Adverse-Health Effects Avoided From Exposure to PM

Adverse Health Effect *	Per Case Valuation (1990 dollars)	Per Case Valuation (2006 dollars)
Mortality	\$4,800,000	\$7,403,800
Chronic bronchitis	\$260,000	\$401,000
Hospital admissions for respiratory conditions	\$6,900	\$10,640
Hospital admissions for cardiovascular conditions	\$9,500	\$14,650
Emergency room visits for asthma	\$194	\$299
Acute Bronchitis	\$45	\$69
Asthma attack	\$32	\$49
Moderate or worse asthma day	\$32	\$49
Acute respiratory symptom	\$18	\$28
Upper respiratory symptom	\$19	\$29
Lower respiratory symptom	\$12	\$19
Shortness of breath, chest tightness, or wheeze	\$5	\$8
Work loss day	\$83	\$128
Mild restricted activity day	\$38	\$59

* An individual's health status and age prior to exposure impacts his/her susceptibility. At risk persons include those who have suffered a stroke or have cardiovascular disease. Some age cohorts are more susceptible to air pollution than others, i.e., children and elderly.

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Source: Derived from U.S. EPA, 1999b. According to EPA, cost values of these illnesses tend to underestimate the true value of avoiding these adverse-health effects. Mean estimates of willingness-to-pay (WTP) were used to derive values, unless WTP values were not available, in which case, the cost of treating or mitigating the effects was used. The value of an avoided asthma attack, for example, would be a person's WTP to avoid that symptom.

Mortality in Table 1 actually refers to statistical deaths, or inferred deaths due to premature mortality. A small decline in the risk for premature death will have a certain monetary value for individuals, and as such, they will be willing to pay a certain amount to avoid premature death. For instance, if PM emissions are reduced so that the mortality risk on the exposed population is decreased by one in one-hundred thousand, then among 100,000 persons, one less person will be expected to die prematurely. If the average willingness-to-pay (WTP) per person for such a risk reduction were \$75, the implied value of the statistical premature death avoided would be \$7.5 million.

9.7 Probable effect on county revenues

Some of the proposed rule changes would result in increased fee revenue to the Maricopa County Air Quality Department, which anticipates revising its fee schedule (under a separate rulemaking) in order to recoup the costs of designing, implementing and administering new programs contained within the present rulemaking. A list of the proposed programs, along with estimates of proposed user fees and overall revenue projections, is as follows:

Program	Estimated Users	Fee/User	Estimated Annual Revenue
Subcontractor Registration Program	10,000	\$50	\$500,000
Basic Dust Control Training Class	10,336	\$25	\$258,400
Comprehensive Dust Control Training Class	1,994	\$50	\$99,700

No other significant impact on state or County revenues from the present rulemaking is anticipated.

9.8 Alternative Methods Considered to Achieve the Purpose of the Proposed Rule Making

State law requires agencies to reduce the impact of a rule on small businesses by using certain methods, when they are legal and feasible, in meeting the statutory objectives of the rulemaking. Maricopa County considered each of the methods prescribed in Arizona Revised Statutes (A.R.S.) § 41-1035 and A.R.S. § 41-1055(B) for reducing the impact on small businesses. Methods that may be used include the following: (1) exempt them from any or all rule requirements, (2) establish performance standards that would replace any design or operational standards, or (3) institute reduced compliance or reporting requirements, such as establishing less stringent requirements, consolidating or simplifying them or setting less stringent schedules or deadlines.

In some cases, no alternatives have been considered, as the proposed rule changes are designed to comply with state statute: e.g., the Subcontractor Registration Program (Rule 200, § 306), has been developed to comply with A.R.S. 49-474.06; and the Basic and Comprehensive Dust Control Training Classes (Rule 310, §§ 309.1 and 309.2) have been developed to comply with A.R.S. 49-474.05.

9.9 Data Availability and Limitations of Assumptions

The present draft of this economic impact statement was developed in accordance with A.R.S. § 41-1055 to assess the potential economic impacts of the proposed changes to these rules. Sources of data and any assumptions used to develop these estimates have been included in the discussion of these analyses; and where data are lacking or uncertain, this has been noted wherever possible. Maricopa County Air Quality Department welcomes all interested parties to provide additional relevant information and documentation on the anticipated costs and benefits resulting from compliance with the proposed rule(s).

10. Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:

Name: Johanna M. Kuspert or Jo Crumbaker
 Maricopa County Air Quality Department

Address: 1001 N. Central Ave., Suite 595
 Phoenix, AZ 85004

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Telephone: (602) 506-6710 or (602) 506-6705
Fax: (602) 506-6179

E-mail: jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

11. The time, place and nature of the proceedings for the amendment of the rule:

Written comments will be accepted if received between the date of this publication and December 11, 2007, 5:00 p.m. Written comments may be mailed or hand delivered to the Maricopa County Air Quality Department (see item 4 above). Written comments received during the comment period will be considered formal comments to the proposed rules and will be responded to in the Notice of Final Rulemaking.

An oral proceeding will be held on December 10, 2007 at 9:00 a.m. at the Maricopa County Flood Control District, 2801 W. Durango, Operations Building. All comments made at this oral proceeding will be considered formal comments and will be recorded and transcribed. All formal comments will be addressed in the Notice of Final Rulemaking.

12. Any other matters prescribed by the statute that are applicable to the specific agency or to any specific rule or class of rules:

Not Applicable

13. Incorporations by reference and their location in the rules:

<u>Incorporation By Reference</u>	<u>Location</u>
ASTM Method C136-06	Rule 310, Section 223 Rule 310, Section 504.1
ASTM Method D2216-05	Rule 310, Section 303.2(a)(1)(a)(iii) Rule 310, Section 305.5(b)(2) Rule 310, Section 305.11(b)(2) Rule 310, Section 504.2
ASTM Method D1557-02e1	Rule 310, Section 303.2(a)(1)(a)(iii) Rule 310, Section 305.5(b)(2) Rule 310, Section 305.11(b)(2) Rule 310, Section 504.3
Appendix C-Fugitive Dust Test Methods	Rule 310, Section 303.2(c) Rule 310, Section 304.3 Rule 310, Section 304.4 Rule 310, Section 501.1 Rule 310, Section 501.2 Rule 310.01, Section 501.1(b) Rule 310.01, Section 501.2 Rule 310.01, Section 501.3
EPA Reference Method 203B	Rule 310.01, Section 501.1(a)

14. The full text of the rule follows:

REGULATION II - PERMITS AND FEES

RULE 200

PERMIT REQUIREMENTS

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Revised 07/13/88
Repealed and Adopted 11/15/93
Revised 02/15/95
Revised 06/19/96
Revised 05/20/98
Revised 08/22/01

**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION II – PERMITS AND FEES
RULE 200
PERMIT REQUIREMENTS**

SECTION 100 – GENERAL

- 101 PURPOSE:** To provide an orderly procedure for the review of new sources of air pollution and for the modification and operation of existing sources through the issuance of permits.

SECTION 200 – DEFINITIONS (NOT APPLICABLE)

See Rule 100 (General Provisions And Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule.

SECTION 300 – STANDARDS

- 301 PERMITS REQUIRED:** Except as otherwise provided in these rules, no person shall commence construction of, operate, or make a modification to any source subject to regulation under ~~this rule~~ these rules, without first obtaining a permit or permit revision from the Control Officer. The Maricopa County Air Quality Department issues the following permits: Title V permits, Non-Title V permits, General permits, Dust Control permits, and Permits To Burn. The standards and/or requirements for these permits are described in Section 302 thru Section 305 of this rule. Additional standards, administrative requirements, and monitoring and records requirements for some of these

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permits are described in individual rules of these rules, as applicable/as specified in Section 302 thru Section 305 of this rule.

302 TITLE V PERMIT: A Title V permit or, in the case of an existing permitted source, a permit revision shall be required for a person to commence construction of, to operate, or to modify any of the following:

302.1 Any major source as defined in Rule 100 of these rules.

302.2 Any solid waste incineration unit required to obtain a permit pursuant to Section 129(e) of the Act.

302.3 Any affected source as defined in Rule 100 of these rules.

302.4 Any source in a source category designated by the Administrator pursuant to 40 CFR 70.3 and adopted by the Board of Supervisors by rule.

303 NON-TITLE V PERMIT: Unless a Title V permit or a permit revision is required, a Non-Title V permit or permit revision shall be required for:

303.1 A person to make a modification to a source which would cause it to emit or to have the potential to emit quantities of regulated air pollutants greater than those specified in subsections 303.2 and 303.3(c) of this rule.

303.2 A person to commence construction of or to modify either of the following after rules adopted pursuant to A.R.S. § 49-480.04 are effective:

a. A source that emits or has the potential to emit with controls ten tons per year or more of a hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants designated by the Director pursuant to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules and not listed in Section 112(b) of the Act.

b. A source that is within a category designated by the Director pursuant to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules and that emits or has the potential to emit with controls at least one ton, but less than ten tons per year of a hazardous air pollutant or at least 2.5 tons, but less than 25 tons per year of any combination of hazardous air pollutants.

303.3 A person to commence construction of, to operate, or to modify any of the following:

a. Any source other than a major source, including an area source, subject to a standard, limitation, or other requirement under Section 111 of the Act.

b. Any source other than a major source, including an area source, subject to a standard or other requirement pursuant to Section 112 of the Act. However, a source is not required to obtain a permit solely because it is subject to regulation or requirements pursuant to Section 112(r) of the Act.

c. Any source that emits or has the potential to emit, without control, regulated air pollutants, except the following sources to the extent which the described limits are not exceeded. However, any source that is exempt from obtaining a Non-Title V permit according to this section shall still comply with all other applicable requirements of these rules.

(1) General Combustion Equipment:

(a) Any source with an aggregated input capacity of less than 2,000,000 BTU per hour calculated by adding only those pieces of equipment over 300,000 BTU per hour with respect to fuel burning equipment fired with natural gas or liquefied petroleum gas.

(b) Any oil fueled heating equipment with a maximum rated input capacity or an aggregated input capacity of less than 500,000 BTU (527,200 kilojoules) per hour.

(2) Liquid Storage Tanks:

(a) Stationary storage tanks with a capacity of 250 gallons (946 liters) or less used for storing organic liquids.

(b) Stationary storage tanks used for storing organic liquids with a true vapor pressure of 1.5 psia (77.5 mm Hg) or less.

(c) Pressure tanks and pressurized vessels used exclusively for the storage of liquefied gases.

(3) Surface Coating And Printing Equipment:

(a) The aggregate of all surface coating operations of a source in which no coated product is heat cured and a combined total of one gallon per day or less of all coating materials and solvents are used.

(b) Application equipment for architectural surface coatings is used for commercial and residential applications.

(c) Any coating operation, which employs only hand-held aerosol cans, where VOC emissions do not exceed three pounds on any single day.

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- (d) Any printing operation which employs a combination of printing presses with a maximum of 500 square inches (3226 cm²) of impression area and a maximum of two units per printing press. For the purposes of this rule, "units" means the number of printing surfaces.
- (4) **Solvent Cleaning Equipment:** Unheated, non-conveyorized, cleaning or coating equipment that does not include control enclosures:
 - (a) With an open surface area of one square meter (10.8 square feet) or less and an internal volume of 350 liters (92.5 gallons) or less, having an organic solvent loss of three gallons per day or less, or
 - (b) Using only organic solvents with an initial boiling point of 302°F (150°C) or greater and having an organic solvent loss of three gallons per day or less, or
 - (c) Using materials with a VOC content of two percent or less by volume (20 cubic centimeters per liter).
- (5) **Internal Combustion Equipment:**
 - (a) Internal combustion engines with a manufacturer's maximum continuous rating of 50 horsepower or less or a maximum accumulative rating of 250 horsepower or less for engines used in the same process at one source.
 - (b) Internal combustion engines used solely as a source of unlimited standby power or emergency purposes and operated at or below 500 hours per year for routine testing and emergency standby operation for each internal combustion engine and provided such source demonstrates that the potential emissions at 500 hours of operation each of all internal combustion engines do not exceed 4,000 pounds of nitrogen oxides or carbon monoxide per year as evidenced by an installed hour meter or written usage records maintained by the operator; and
 - (i) Are only used for power when normal power line service fails; or
 - (ii) Are only used for the emergency pumping of water.
 - (iii) This exemption does not apply to internal combustion engines used as standby power due to a voluntary reduction in power by the power company.
 - (c) Engines used to propel motorized vehicles.
 - (d) Gas turbines with a maximum heat input at ISO Standard Day Conditions of less than 3,000,000 BTU (3,162,000 kilojoules) per hour fired exclusively with natural gas and/or liquefied petroleum gas.
 - (e) Portable internal combustion engines used on a temporary basis of no more than 30 days per calendar year at any one facility.
- (6) **Food Equipment:**
 - (a) Equipment, excluding boilers, used in eating establishments or other retail establishments for the purpose of preparing food for human consumption.
 - (b) Bakeries:
 - (i) Mixers and blenders used in bakeries where the products are edible and intended for human consumption.
 - (ii) Ovens at bakeries whose total production is less than 10,000 pounds (4,535 kg) per operating day.
- (7) **Miscellaneous:**
 - (a) Diesel contaminated soil remediation projects, where no heat is applied.
 - (b) Self-contained, enclosed blast and shot peen equipment where the total internal volume of the blast section is 50 cubic feet or less and where any venting is done via pollution control equipment.
 - (c) Those laboratory acids which have both a pH above 1.5 and an aggregate daily emission to ambient air of vapor/mists from all such acids not exceeding three pounds on any single day.
 - (d) Brazing or welding equipment.
 - (e) Hand soldering equipment.
 - (f) A source whose aggregate of all wood working equipment totals 50 horsepower or less.
 - (g) Equipment used for buffing, carving, cutting, drilling, surface grinding, machining, planing, routing, sanding, sawing, shredding, or turning of ceramic artwork, precision parts, leather, metals, plastics, rubber, fiberboard, masonry, carbon, graphite or glass.
 - (h) Refrigerant recovery equipment.
 - (i) ~~Normal landscaping, building~~ Building maintenance or janitorial activities.

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- (j) A source whose aggregate of all miscellaneous equipment, processes or production lines not otherwise identified in this section has total uncontrolled emissions of less than three pounds (1.4 kg) VOC or PM₁₀ during any day and less than 5.5 pounds (2.5 kg) of any other regulated air pollutant during any day.
- (k) A person to begin actual construction of a source subject to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules.
- (l) A person to make a modification to a source subject to Rule 372 (Maricopa County Hazardous Air Pollutants (HAPs) Program) of these rules.

304 GENERAL PERMIT: A General permit shall be required for a person to commence construction of, to operate, or to modify a source that is a member of a facility class for which a General permit has been developed pursuant to Rule 230 of these rules. The provisions of Rule 230 of these rules shall apply to General permits, except as otherwise provided in Rule 230 of these rules.

305 EARTH MOVING PERMIT DUST CONTROL PERMIT: ~~No person shall cause, commence, suffer, allow, or engage in any earth moving operation that disturbs a total surface area of 0.10 acre or more, without first obtaining a permit from the Control Officer. This requirement for a permit shall apply to all such activities conducted for commercial, industrial, or institutional purposes or conducted by any governmental entity. The property owner, lessee, developer, or general/prime contractor will be responsible for acquiring the permit. Permits shall not be required for earth moving operations for emergency repair of utilities, paved roads, unpaved roads, shoulders, and/or alleys. A Dust Control permit shall be required before a person, including but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of Rule 310 of these rules, causes, commences, suffers, allows, or engages in any dust generating operation that disturbs a total surface area of 0.10 acre (4,356 square feet) or more. The provisions of Rule 310 of these rules shall apply to Dust Control permits, except as otherwise provided in Rule 310 of these rules.~~

~~305.1 Application: The applicant shall file an application, which includes an 8½" x 11" site map showing all linear dimensions, and shall submit a control plan as described in Rule 310 of these rules.~~

~~305.2 Annual Block Permit: Any person responsible for more than one earth moving operation consisting of routine operation, maintenance, and expansion or extension of utilities, paved roads, unpaved roads, road shoulders and/or alleys, and public right of ways at non-contiguous sites may submit one permit application covering multiple sites at which construction will commence within 12 months of permit issuance provided that:~~

- ~~a. The control plan as described in Rule 310 of these rules applies to all sites; and~~
- ~~b. The applicant submits a list of all sites, including the location and size of each site, with the application; and~~
- ~~c. For any project not listed in the application, the applicant notifies the Control Officer in writing at least three working days prior to commencing the earth moving operation. The notice shall include the site location, size, type of activity, and start date.~~

~~305.3 Action On Permit Application: The Control Officer shall take final action on an earth moving permit application within 14 calendar days of the filing of the completed application. The Control Officer shall notify the applicant in writing of his approval or denial.~~

~~305.4 Permit Term: Earth Moving permits issued pursuant to this rule shall be issued for a period of one year from the date of issuance.~~

~~305.5 Permit Renewal: Earth Moving permits shall be renewed annually should the project last longer than one year from the date the permit was issued. Applications for permit renewal shall be submitted to the Control Officer at least 14 calendar days prior to the expiration date of the original permit.~~

306 SUBCONTRACTOR REGISTRATION:

306.1 A subcontractor who is engaged in dust generating operations at a site that is subject to a permit that is issued by a Control Officer and that requires control of PM₁₀ emissions from dust generating operations shall register with the Control Officer by submitting information in the manner prescribed by the Control Officer. The Control Officer shall issue a registration number after payment of the fee. The Control Officer may establish and assess a fee for the registration based on the total cost of processing the registration and issuance of a registration number.

306.2 The subcontractor shall have its registration number readily accessible on-site while conducting any dust generating operations. The subcontractor's registration number must be visible and readable by the public without having to be asked by the public (e.g., included/posted in a sign that is visible on the

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subcontractor's vehicle or equipment, included/posted on a sign that is visible in the window of the subcontractor's vehicle or equipment, or included/posted on a sign where the subcontractor is working on the site).

~~306~~**307** **PERMIT TO BURN:** A permit is required for any open outdoor fire authorized under the exceptions in A.R.S. 49-501 or Rule 314 of these rules.

~~307~~**308** **EXEMPTIONS:** Notwithstanding Sections 301, 302, and 303 of this rule, the following sources shall not require a permit, unless the source is a major source, or unless operation without a permit would result in a violation of the Act:

~~307-1~~**308.1** Sources subject to 40 CFR 60, Subpart AAA, Standards of Performance for New Residential Wood Heaters.

~~307-2~~**308.2** Sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR 61.145.

~~307-3~~**308.3** Agricultural equipment used in normal farm operations. Agricultural equipment used in normal farm operations, for the purposes of this rule, does not include equipment that would be classified as a source that would require a permit under Title V of the Act, or would be subject to a standard under 40 CFR parts 60 or 61.

~~308~~**309** **STANDARDS FOR APPLICATIONS:** All permit applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision, which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of these rules. The issuance of any permit or permit revision shall not relieve the owner or operator from compliance with any Federal laws, Arizona laws, or these rules, nor does any other law, regulation or permit relieve the owner or operator from obtaining a permit or permit revision required under these rules.

~~308-1~~**309.1** Insignificant Activities:

- a. Rather than supplying detailed information, a Title V source may, in its permit application, list and generally group insignificant activities, which are defined in Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix D-List Of Insignificant Activities of these rules.
- b. A Non-Title V source is not required to list nor to describe, in a permit application, insignificant activities, which are defined in Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix D-List Of Insignificant Activities of these rules. If a Non-Title V source's emissions are approaching an applicable requirement, including but not limited to best available control technology (BACT) requirements or major source status, then such Non-Title V source may be required by Maricopa County to include, in a permit application, a description of its insignificant activities and emissions calculations for such insignificant activities.
- c. An activity, process, or emissions unit that is not included in Appendix D-List Of Insignificant Activities of these rules may be considered an insignificant activity if it meets the definition of insignificant activity in Rule 100-General Provisions And Definitions of these rules and is approved by the Control Officer and the Administrator of the Environmental Protection Agency (EPA). A source may request approval for the classification of an activity as insignificant by including such a request in its permit application, along with justification that such activity meets the definition of insignificant activity in Rule 100-General Provisions And Definitions of these rules.
- d. An application may not omit information regarding insignificant activities that is needed to determine: (1) the applicability of or to impose any applicable requirement; (2) whether the source is in compliance with applicable requirements; or (3) the fee amount required under these rules. In such cases, emissions calculations or other necessary information shall be included in the application.

~~308-2~~**309.2** **Trivial Activities:**

- a. A Title V source is not required, in a permit application, to list trivial activities, to describe trivial activities, nor to include the emissions from trivial activities, which are defined in Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix E-List Of Trivial Activities of these rules.
- b. A Non-Title V source is not required, in a permit application, to list trivial activities, to describe trivial activities, nor to include the emissions from trivial activities, which are defined in Rule 100-General Provisions And Definitions of these rules and which are listed in Appendix E-List Of Trivial Activities of these rules.

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- c. An activity that is not included in Appendix E-List Of Trivial Activities of these rules may be considered a trivial activity, if such activity meets the definition of trivial activity in Rule 100-General Provisions And Definitions of these rules.

309-310 PERMIT CONDITIONS: The Control Officer may impose any permit conditions that are necessary to ensure compliance with Federal laws, Arizona laws, or these rules.

~~309-310.1~~ **310.1** The Control Officer may require, as specified in ~~subsection 309.2 and subsection 309.3~~ **Section 310.2 and Section 310.3** of this rule, any source of regulated air pollutants to monitor, sample, or perform other studies to quantify emissions of regulated air pollutants or levels of air pollution that may reasonably be attributable to that source, if the Control Officer:

- a. Determines that monitoring, sampling, or other studies are necessary to determine the effects of the source on levels of air pollution; or
- b. Has reasonable cause to believe a violation of this rule, rules adopted pursuant to this rule, or a permit issued pursuant to this rule has been committed; or
- c. Determines that those studies or data are necessary to accomplish the purposes of this rule and that the monitoring, sampling, or other studies by the source are necessary in order to assess the impact of the source on the emission of regulated air contaminants.

~~309-2310.2~~ **310.2** The Control Officer may require a source of air contaminants, by permit or order, to perform monitoring, sampling, or other quantification of its emissions or air pollution that may reasonably be attributed to such a source. Before requiring such monitoring, sampling, or other quantification by permit or order, the Control Officer shall consider the relative cost and accuracy of any alternatives which may be reasonable under the circumstances such as emission factors, modeling, mass balance analyses, or emissions projections. The Control Officer may require such monitoring, sampling, or other quantification by permit or order if the Control Officer determines in writing that all of the following conditions are met:

- a. The actual or potential emissions of air pollution may adversely affect public health or the environment.
- b. An adequate scientific basis for the monitoring, sampling, or quantification method exists.
- c. The monitoring, sampling, or quantification method is technically feasible for the subject contaminant and the source.
- d. The monitoring, sampling, or quantification method is reasonably accurate.
- e. The cost of the method is reasonable in light of the use to be made of the data.

~~309-3310.3~~ **310.3** Orders issued or permit conditions imposed pursuant to this rule shall be appealable to the hearing board in the same manner as that prescribed for orders of abatement in A.R.S. § 49-489 and A.R.S. § 49-490 and for permit conditions in A.R.S. § 49-482.

~~340-311~~ **PROHIBITION – PERMIT MODIFICATION:** A person shall not willfully deface, alter, forge, counterfeit, or falsify any permit issued under the provisions of these rules.

~~341-312~~ **PERMIT POSTING REQUIRED:** Any person who has been granted a permit shall keep a complete permit clearly visible and accessible on the site where the equipment is installed. All equipment covered by the permit shall be listed in the permit by a serial number or other equipment identification symbol and shall be identified on a plant diagram.

~~342-313~~ **TRANSITION FROM INSTALLATION AND OPERATING PERMIT PROGRAM TO UNITARY PERMIT PROGRAM:**

~~342-2313.1~~ **313.1 Sources With A Valid Installation, Operating, Or Conditional Permit:** A valid installation permit or operating permit issued by the Control Officer or a valid conditional permit issued by the hearing board before September 1, 1993, and the authority to operate as provided in Laws 1992, Chapter 299, Section 65, continue in effect until any of the following occurs:

- a. The Control Officer revokes an installation permit.
- b. The Control Officer issues or denies a Title V permit or a Non-Title V permit to the source.
- c. The hearing board revokes or modifies a conditional permit or the conditional permit expires. A source operating under a valid conditional permit may continue to operate in accordance with the terms and conditions of such permit after the expiration of the conditional permit if, at least 30 days prior to the expiration of the conditional permit, the source submits an application to the Control Officer for a Title V permit as described in ~~Section 342.2~~ **Section 313.2** of this rule or for a Non-Title V permit as described in ~~Section 342.3~~ **Section 313.3** of this rule.

~~342-2313.2~~ **313.2 Title V Sources With An Installation, Operating, Or Conditional Permit:** Following November 29, 1996, the effective date of the Environmental Protection Agency's (EPA's) final interim approval of Maricopa County's Title V permit program, a source becomes subject to the requirements of the Title V

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permit program, when the source meets the applicability requirements as provided in this rule. Sources which hold a valid installation, operating, or conditional permit and require a Title V permit shall comply with the following provisions:

- a. The owner or operator of the source shall submit a permit application within 180 days of receipt of written notice from the Control Officer that an application is required or 12 months after the source becomes subject to the requirements of Title V of the Act and the permit requirements of these rules, whichever is earlier.
- b. Any source, which has not yet submitted a Title V permit application, that wishes to make any source change not requiring a permit, an administrative permit revision, a minor permit revision, or a significant permit revision shall comply with the applicable provisions of Rule 210 of these rules.

~~312-3~~**313.3 Non-Title V Sources With An Installation, Operating, Or Conditional Permit:** Sources requiring a Non-Title V permit in existence on the date these rules become effective which hold a valid installation, operating, or conditional permit shall comply with the following provisions:

- a. All sources shall submit a permit application to the Control Officer within 90 days of receipt of written notice from the Control Officer that an application is required.
- b. Any source that wishes to make any source change not requiring a permit, an administrative permit revision, a minor permit revision, or a non-minor permit revision shall comply with the applicable provisions of Rule 220 of these rules.

~~312-4~~**313.4 Written Notice:** For purposes of this subsection, written notice shall include, but not be limited to, a written warning, notice of violation, or order issued by the Control Officer for constructing or operating an emission source without a permit. Such a source shall be considered to be in violation of these rules on each day of operation or each day during which construction continues, until a permit is granted.

~~312-5~~**313.5 Sources Not Under Permit:**

- a. All sources not in existence prior to the effective date of these rules shall first submit to the Control Officer an air quality permit application for the entire source and shall have been issued an air quality permit before commencing construction of such source.
- b. All sources in existence on the date these rules become effective and not holding a valid installation permit and/or a valid operating permit issued by the Control Officer, which have not applied for a Non-Title V permit pursuant to these rules, shall submit to the Control Officer a permit application for the entire source.
- c. All sources in existence on the date these rules become effective and not holding a valid installation permit and/or a valid operating permit issued by the Control Officer, which have not applied for a Title V permit pursuant to these rules, shall submit to the Control Officer a Title V permit application no more than 12 months after becoming subject to Title V permit requirements.

~~312-6~~**313.6 Sources Which Currently Have An Installation Or Operating Permit:**

- a. For sources in existence on the date these rules become effective holding a valid installation permit and/or a valid operating permit issued by the Control Officer, the Control Officer may establish a phased schedule for acting on permit applications received within the first full year after the source becomes subject to obtaining a Title V or a Non-Title V permit under these rules. The schedule shall assure that at least one-third of such applications will be acted on annually over a period not to exceed three years after such effective date. Based on this schedule, the Control Officer shall review a completed application in accordance with the provisions of these rules and shall issue or deny the applicable permit within 18 months after the receipt of the completed application.
- b. Any application for an installation permit or an operating permit that is determined to be complete prior to the effective date of these rules but for which no permit has been issued shall be considered complete for the purposes of this section. In issuing a permit pursuant to such an application, the Control Officer shall include in the permit all elements addressed in the application and a schedule of compliance for submitting an application for a permit revision to address the elements required to be in the permit that were not included in the operating permit application or in the installation permit application. No later than six months after the effective date of these rules, the Control Officer shall take final action on an operating permit application or on an installation permit application determined to be complete prior to the effective date of these rules.

~~313~~**314 ACCELERATED PERMITTING:**

~~313-1~~**314.1** Notwithstanding any other provisions of these rules, the following qualify a source for a request-submittal for accelerated processing: an application for a Title V permit or for a Non-Title V permit; any permit revision; and any coverage under a general permit. Such a request-submittal shall be submitted in

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writing to the Control Officer at least 30 days in advance of filing the application and shall be accompanied by fees as described in Rule 280 of these rules.

- ~~313-2314.2~~ **314.2** When an applicant has requested accelerated permit processing, the Control Officer may, to the extent practicable, undertake to process the permit or permit revision in accordance with the following schedule:
- a. For applications for initial Title V and Non-Title V permits under Rules 210 and 220 of these rules, for significant permit revisions under Rule 210 of these rules, or for non-minor permit revisions under Rule 220 of these rules, final action on the permit or on the permit revision shall be taken within 90 days or after the Control Officer determines that the application is complete for a Non-Title V source and within 120 days after the Control Officer determines that the application is complete for a Title V source. Except for a new major source or a major modification subject to the requirements of Rule 240 of these rules, an application for a new permit, a significant permit revision, or a permit renewal shall be deemed to be complete unless the Control Officer notifies the applicant by certified mail within 30 days of receipt of the application that the application is not complete.
 - b. For applications for coverage under a general permit under Rule 230 of these rules, final action shall be taken within 30 days after receipt of the application.
 - c. For minor permit revisions governed by Rule 210 of these rules and Rule 220 of these rules, the permit revision shall be issued within 60 days after receipt of the application.

- ~~313-3314.3~~ **314.3** Before issuing a permit or permit revision pursuant to this section, the applicant shall pay to the Control Officer all fees due as described in Rule 280 of these rules. Nothing in this section shall affect the public participation requirements of Rules 210 or 220 of these rules, or EPA and affected state review as required under Rule 210 of these rules.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

401 APPROVAL OR DENIAL OF PERMIT OR PERMIT REVISION:

- 401.1** The Control Officer shall deny a permit or revision if the applicant does not demonstrate that every such source for which a permit or permit revision is sought is so designed, controlled, or equipped with such air pollution control equipment that the source may be expected to operate without emitting or without causing to be emitted air contaminants in violation of the provisions of these rules.
- 401.2** Prior to acting on an application for a permit, the Control Officer may require the applicant to provide and to maintain such devices and procedures as are necessary for sampling and for testing purposes in order to secure information that will disclose the nature, extent, quantity, or degree of air contaminants discharged into the atmosphere from the source described in the application. In the event of such a requirement, the Control Officer shall notify the applicant in writing of the type and characteristics of such devices and procedures.
- 401.3** In acting upon an application for a permit renewal, if the Control Officer finds that such source has not been constructed in accordance with any prior permit or revision issued pursuant to A.R.S. § 49-480.01, the Control Officer shall require the permittee to obtain a permit revision or shall deny the permit renewal. The Control Officer shall not accept any further application for a permit for such source so constructed until the Control Officer finds that such source has been reconstructed in accordance with a prior permit or a revision, or until a revision to the permit has been obtained. The Control Officer may issue a permit with a compliance schedule for a source that is not in compliance with all applicable requirements at the time of permit issuance.
- 401.4** After a decision on a permit or on a permit revision, the Control Officer shall notify the applicant and any person who filed a comment on the permit pursuant to A.R.S. § 49-480 or on the permit revision pursuant to A.R.S. § 49-480.01 in writing of the decision, and if the permit is denied, the reasons for such denial. Service of this notification may be made in person or by first class mail. The Control Officer shall not accept a further application unless the applicant has corrected the circumstances giving rise to the objections as specified by the Control Officer as reasons for such denial.

402 PERMIT REOPENINGS; REVOCATION AND REISSUANCE; TERMINATION:

402.1 Reopening For Cause:

- a. Each issued permit shall include provisions specifying the conditions under which the permit will be reopened prior to the expiration of the permit. A permit shall be reopened and revised under any of the following circumstances:
 - (1) Additional applicable requirements under the Act become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the

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effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to Section 403.2 of this rule. Any permit revision required pursuant to this rule shall comply with Section 403 of this rule for a permit renewal and shall reset the five year permit term.

- (2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Title V permit.
- (3) The Control Officer or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- (4) The Control Officer or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- b. Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Section 402.1a(1) of this rule, affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as is practicable.
- c. Action to reopen a permit under this section shall not be initiated before a notice of such intent is provided to the source by the Control Officer at least 30 days in advance of the date that the permit is to be reopened, except that the Control Officer may provide a shorter time period in the case of an emergency.
- d. When a permit is reopened and revised pursuant to this rule, the Control Officer may make appropriate revisions to the permit shield established pursuant to Rule 210 of these rules.

402.2 Reopening For Cause By The Administrator:

- a. If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit pursuant to Section 402.1 of this rule, the Administrator may notify the Control Officer and the permittee of such finding in writing. Within ten days of receipt of notice from the Administrator that cause exists to reopen a Title V permit, the Control Officer shall notify the source.
- b. Within 90 days of receipt of notice from the Administrator that cause exists to reopen a permit, the Control Officer shall forward to the Administrator a proposed determination of termination, modification, or revocation and reissuance of the permit. The Control Officer may request a 90 day extension of this limit if it is necessary to request a new or revised permit application or additional information from the applicant for, or holder of, a Title V permit.
- c. The Control Officer shall have 90 days from receipt of an objection by the Administrator to attempt to resolve the objection.

403 PERMIT RENEWAL AND EXPIRATION:

403.1 Prior to renewing a permit issued under these rules, the Control Officer shall provide notice in the same manner and form as provided in Rule 210 of these rules.

403.2 The Control Officer shall not renew a permit issued under these rules unless the permittee applies for a permit renewal prior to the expiration of a permit in the manner required by Rule 210 of these rules. If a timely and complete application for a permit renewal is submitted, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied. Any testing that is required for a renewal shall be completed before the proposed permit renewal is issued by the Control Officer.

403.3 The Control Officer shall publish notice of a permit renewal decision in the same manner as that provided in Rule 210 of these rules for a Title V permit and as that provided in Rule 220 of these rules for a Non-Title V permit.

404 PERMIT TRANSFERS:

404.1 Except as provided in A.R.S. § 49-429 and Section 404.2 of this rule, a Title V permit, a Non-Title V permit, or a General permit may be transferred to another person. Before the proposed transfer, the person who holds a valid Non-Title V permit or a valid General permit shall comply with the administrative permit revision procedures pursuant to Rule 220, Section 405.1 of these rules. At least 30 days before the proposed transfer, the person who holds a valid Title V permit shall give notice to the Control Officer in writing and shall comply with the administrative permit amendment procedures pursuant to Rule 210, Section 404 of these rules. Permit transfer notice shall contain the following:

- a. The permit number and expiration date.
- b. The name, address and telephone number of the current permit holder.
- c. The name, address and telephone number of the person to receive the permit.

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- d. The name and title of the individual within the organization who is accepting responsibility for the permit along with a signed statement by that person indicating such acceptance.
- e. A description of the equipment to be transferred.
- f. A written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee.
- g. Provisions for the payment of any fees pursuant to Rule 280 of these rules that will be due and payable before the effective date of transfer.
- h. Sufficient information about the source's technical and financial capabilities of operating the source to allow the Control Officer to make the decision in Section 404.2 of this rule including:
 - (1) The qualifications of each person principally responsible for the operation of the source.
 - (2) A statement by the chief financial officer of the new permittee that it is financially capable of operating the source in compliance with the law, and the information that provides the basis for that statement.
 - (3) A brief description of any action for the enforcement of any federal or state law, rule or regulation, or any county, city or local government ordinance relating to the protection of the environment, instituted against any person employed by the new permittee and principally responsible for operating the source during the five years preceding the date of application. In lieu of this description, the new permittee may submit a copy of the certificate of disclosure or 10-K form required under A.R.S. § 49-109, or a statement that this information has been filed in compliance with A.R.S. § 49-109.

404.2 The Control Officer shall deny the transfer if the Control Officer determines that the organization receiving the permit is not capable of operating the source in compliance with Article 3, Chapter 3, Title 49, Arizona Revised Statutes, the provisions of these rules, or the provisions of the permit. Notice of the denial stating the reason for the denial shall be sent to the original permit holder by certified mail stating the reason for the denial within ten working days of the Control Officer's receipt of the application. If the transfer is not denied within ten working days after receipt of the notice, the Control Officer shall approve such permit transfer.

404.3 To appeal the transfer denial:

- a. Both the transferor and transferee shall petition the hearing board in writing for a public hearing; and
- b. The appeal process for a permit shall be followed.

405 PERMITS CONTAINING THE TERMS AND CONDITIONS OF FEDERAL DELAYED COMPLIANCE ORDERS (DCO) OR CONSENT DECREES:

405.1 The terms and conditions of either a DCO or consent decree shall be incorporated into a permit through a permit revision. In the event the permit expires prior to the expiration of the DCO or consent decree, the DCO or consent decree shall be incorporated into any permit renewal.

405.2 The owner or operator of a source subject to a DCO or consent decree shall submit to the Control Officer a quarterly report of the status of the source and construction progress and copies of any reports to the Administrator required under the order or decree. The Control Officer may require additional reporting requirements and conditions in permits issued under this rule.

405.3 For the purpose of this rule, sources subject to a consent decree issued by a federal court shall meet the same requirements as those subject to a DCO.

406 APPEAL: Denial or revocation of a permit shall be stayed by the permittee's written petition for a hearing, filed in accordance with Rule 400 of these rules.

407 AIR QUALITY IMPACT MODELS:

407.1 Where the Control Officer requires a person to perform air quality impact modeling, the modeling shall be performed in a manner consistent with 40 CFR 51, Appendix W, "Guideline On Air quality Models", as of July 1, 2004 (and no future amendments or additions), which shall be referred to hereinafter as "Guideline", and is adopted by reference.

407.2 Model Substitution: Where the person can demonstrate that an air quality impact model specified in the guideline is inappropriate, the model may be modified or another model substituted. However, before such modification or substitution can occur, the Control Officer must make a written finding that:

- a. No model in the guideline is appropriate; or
- b. The data base required for the appropriate model in the guideline is not available; and
- c. A model proposed as a substitute or modification is likely to produce results equal or superior to those obtained by models in the guideline.

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- 408 TESTING PROCEDURES:** Except as otherwise specified, the applicable testing procedures contained in the Arizona Testing Manual for Air Pollutant Emissions shall be used to determine compliance with standards or permit conditions established pursuant to these rules.
- 409 PERMIT FEES:** A fee shall be charged for each facility. No permit is valid until the applicable permit fee has been received and until the permit is issued by the Control Officer.
- 410 PORTABLE SOURCES:**
- 410.1** An owner or operator of a portable source which will operate for the duration of its permit solely in Maricopa County shall obtain a permit from the Control Officer for Maricopa County and is subject to Sections 410.2, 410.3, and 410.4 of this rule. A portable source with a current State of Arizona permit need not obtain a Maricopa County permit but is subject to Sections 410.3, 410.4, and 410.5 of this rule. Any permit for a portable source shall contain conditions that will assure compliance with all applicable requirements at all authorized locations.
- 410.2** An owner or operator of a portable source, which has a Maricopa County permit but proposes to operate outside of Maricopa County, shall obtain a permit from the Director. Upon issuance of a permit by the Director, the Control Officer shall terminate the Maricopa County permit for that source. If the owner or operator relocates the portable source in Maricopa County, the owner or operator shall notify the Control Officer as required by Section 410.4 of this rule of the relocation of the portable source. Whenever the owner or operator of a portable source operates a portable source in Maricopa County, such owner or operator shall comply with all regulatory requirements in these rules.
- 410.3** An owner of a portable source, which requires a permit under this rule, shall obtain the permit prior to renting or leasing said portable source. This permit shall be provided by the owner to the renter or lessee, and the renter or lessee shall be bound by the permit provisions. In the event a copy of the permit is not provided to the renter or lessee, both the owner and the renter or lessee shall be responsible for the operation of the portable source in compliance with the permit conditions and any violations thereof.
- 410.4** A portable source may be transported from one location to another within or across Maricopa County boundaries provided the owner or operator of such portable source notifies the Director and any Control Officer who has jurisdiction over the geographic area that includes the new location of the portable source by certified mail at least ten working days before the portable source is transported to the new location. The notification required under this rule shall include:
- a.** A description of the portable source to be transported including the Maricopa County permit number or the State of Arizona permit number for such portable source;
 - b.** A description of the present location;
 - c.** A description of the location to which the portable source is to be transported, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;
 - d.** The date on which the portable source is to be moved;
 - e.** The date on which operation of the portable source will begin at the new location; and
 - f.** The duration of operation at the new location.
- 410.5** An owner or operator of a portable source with a current State of Arizona permit that moves such portable source into Maricopa County shall notify the Control Officer that such portable source is being transported to a new location and shall include in such notification a copy of the State of Arizona permit and a copy of any conditions imposed by the State of Arizona permit. The source shall be subject to all regulatory requirements of these rules.
- 411 PUBLIC RECORDS; CONFIDENTIALITY:**
- 411.1** The Control Officer shall make all permits, including all elements required to be in the permit pursuant to Rule 210 of these rules and Rule 220 of these rules available to the public.
- 411.2** A notice of confidentiality pursuant to A.R.S. § 49-487(c) shall:
- a.** Precisely identify the information in the application documents, which is considered confidential.
 - b.** Contain sufficient supporting information to allow the Control Officer to evaluate whether such information satisfies the requirements related to trade secrets or, if applicable, how the information, if disclosed, could cause substantial harm to the person's competitive position.
- 411.3** Within 30 days of receipt of a notice of confidentiality that complies with Section 411.2 of this rule, the Control Officer shall make a determination as to whether the information satisfies the requirements for trade secret or competitive position pursuant to A.R.S. § 49-487(C)(1) and so notify the applicant in writing. If the Control Officer agrees with the applicant that the information covered by the notice of confidentiality satisfies the statutory requirements, the Control Officer shall include a notice in the administrative record of the permit application that certain information has been considered confidential.

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Revised 02/16/00

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**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 310
FUGITIVE DUST FROM DUST GENERATING OPERATIONS**

SECTION 100 - GENERAL

- 101 PURPOSE:** To limit particulate matter (PM_{10}) emissions into the ambient air from any property, operation or activity that may serve as a fugitive dust source. The effect of this rule shall be to minimize the amount of PM_{10} entrained into the ambient air as a result of the impact of human activities by requiring measures to prevent, reduce, or mitigate particulate matter emissions.
- 102 APPLICABILITY:** The provisions of this rule shall apply to all dust generating operations except for those dust generating operations listed in Section 103 of this rule.
- 103 EXEMPTIONS:** ~~The following are exempt from the requirements of this rule: normal farm cultural practices under Arizona Revised Statutes (A.R.S.) § 49-457 and § 49-504.4, and open areas, vacant lots, unpaved parking lots, and unpaved roadways that are not located at sources that require any permit under these rules. The provisions of this rule shall not apply to the following activities:~~
- 103.1** The provisions of this rule shall not apply to normal farm cultural practices according to Arizona Revised Statutes (A.R.S.) § 49-457 and A.R.S. § 49-504.4.
- 103.2** The provisions of this rule shall not apply to the following non-traditional sources of fugitive dust that are located at sources that do not require any permit under these rules. These non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules.
- a.** Vehicle use in open areas and vacant lots
- b.** Open areas and vacant lots
- c.** Unpaved parking lots
- d.** Unpaved roadways (including alleys)
- e.** Livestock activities
- f.** Erosion-caused deposition of bulk materials onto paved surfaces
- g.** Easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas)
- 103.3** The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status.
- 103.4** An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 304 of this rule.
- 103.5** Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching performed to establish initial landscapes or to redesign existing landscapes.
- 103.6** Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules.
- 103.7** An unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply. See Rule 100-General Provisions And Definitions of these rules for definitions of terms that are used but not specifically defined in this rule.

- 201 AREA A** - As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows:
Township 8 North, Range 2 East and Range 3 East

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Township 7 North, Range 2 West through Range 5 East
Township 6 North, Range 5 West through Range 6 East
Township 5 North, Range 5 West through Range 7 East
Township 4 North, Range 5 West through Range 8 East
Township 3 North, Range 5 West through Range 8 East
Township 2 North, Range 5 West through Range 8 East
Township 1 North, Range 5 West through Range 7 East
Township 1 South, Range 5 West through Range 7 East
Township 2 South, Range 5 West through Range 7 East
Township 3 South, Range 5 West through Range 1 East
Township 4 South, Range 5 West through Range 1 East

~~201~~**202** **AREA ACCESSIBLE TO THE PUBLIC** – Any ~~retail~~ parking lot or public roadway that is ~~open~~ accessible to public travel primarily for purposes unrelated to the dust generating operation.

~~202~~**203** **BULK MATERIAL** - Any material, including, but not limited to, the following materials ~~earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter (i.e., aggregate base course (ABC)), earth, soil, dirt, mud, demolition debris, cotton, trash, cinders, pumice, rock, saw dust, feeds, grains, fertilizers, fluff (from shredders), and dry concrete,~~ that are capable of producing fugitive dust.:

203.1 Earth

203.2 Rock

203.3 Silt

203.4 Sediment

203.5 Sand

203.6 Gravel

203.7 Soil

203.8 Fill

203.9 Aggregate less than 2 inches in length or diameter (i.e., aggregate base course [ABC])

203.10 Dirt

203.11 Mud

203.12 Demolition debris

203.13 Cotton

203.14 Trash

203.15 Cinders

203.16 Pumice

203.17 Saw dust

203.18 Feeds

203.19 Grains

203.20 Fertilizers

203.21 Fluff from shredders

203.22 Dry concrete

~~203~~**204** **BULK MATERIAL HANDLING, STORAGE, AND/OR TRANSPORTING OPERATION** - The use of equipment, haul trucks, and/or motor vehicles, including, but not limited to, for the following activities ~~the loading, unloading, conveying, transporting, piling, stacking, screening, grading, or moving of bulk materials,~~ that are capable of producing fugitive dust.:

204.1 Loading

204.2 Unloading

204.3 Conveying

204.4 Transporting

204.5 Piling

204.6 Stacking

204.7 Screening

204.8 Grading

204.9 Moving bulk materials

~~204~~**205** **CONTROL MEASURE** - A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust. Control measures include, but are not limited to:

~~204.1~~**205.1** Curbing;

~~204.2~~**205.2** Paving;

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- ~~204.3~~**205.3** Pre-wetting Pre-watering;
- ~~204.4~~**205.4** Applying dust suppressants;
- ~~204.5~~**205.5** Physically stabilizing with vegetation, gravel, recrushed/recycled asphalt or other forms of physical stabilization;
- ~~204.6~~**205.6** Limiting, restricting, phasing and/or rerouting motor vehicle access;
- ~~204.7~~**205.7** Reducing vehicle speeds and/or number of vehicle trips;
- ~~204.8~~**205.8** Limiting use of off-road vehicles on open areas and vacant lots;
- ~~204.9~~**205.9** Utilizing work practices and/or structural provisions to prevent wind and water erosion onto paved areas accessible to the public;
- ~~204.10~~**205.10** Appropriately using dust control implements;
- ~~204.11~~**205.11** Installing one or more grizzlies, gravel pads, and/or wash down pads adjacent to the entrance of a paved area accessible to the public to control carry-out and trackout;
- ~~204.12~~**205.12** Keeping open-bodied haul trucks in good repair, so that spillage may not occur from beds, sidewalls, and tailgates; and
- ~~204.13~~**205.13** Covering the cargo beds of haul trucks to minimize wind-blown dust emissions and spillage.
- 205206** **DISTURBED SURFACE AREA** – A portion of the earth's surface ~~(or material placed thereupon) which or~~ material placed on the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, ~~thereby increasing the potential for the emission of fugitive dust. if~~ the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 301 and Section 302 of this rule.
- 206207** **DUST CONTROL IMPLEMENT** – A tool, machine, equipment, accessory, structure, enclosure, cover, material or supply, including an adequate readily available supply of water and its associated distribution/delivery system, used to control fugitive dust emissions.
- 207208** **DUST CONTROL PLAN** - A written plan describing all ~~fugitive dust~~ fugitive dust control measures to be implemented and maintained in order to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.
- 208209** **DUST GENERATING OPERATION** - Any activity capable of generating fugitive dust, including but not limited to, ~~the following activities: land clearing, earthmoving, weed abatement by discing or blading, excavating, construction, demolition, bulk material handling, storage and/or transporting operations, vehicle use and movement, the operation of any outdoor equipment, or unpaved parking lots. For the purpose of this rule, landscape maintenance and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, landscape maintenance shall not include grading, trenching, or any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.~~
- ~~208.1~~**209.1** Land clearing, maintenance, and land cleanup using mechanized equipment
- ~~208.2~~**209.2** Earthmoving
- ~~208.3~~**209.3** Weed abatement by discing or blading
- ~~208.4~~**209.4** Excavating
- ~~208.5~~**209.5** Construction
- ~~208.6~~**209.6** Demolition
- ~~208.7~~**209.7** Bulk material handling (e.g., bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)
- ~~208.8~~**209.8** Storage and/or transporting operations (e.g., open storage piles, bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)
- ~~208.9~~**209.9** Operation of any outdoor equipment
- ~~208.10~~**209.10** Operation of motorized machinery
- ~~208.11~~**209.11** Establishing and/or using staging areas, parking areas, material storage areas, or access routes to and from a site
- ~~208.12~~**209.12** Establishing and/or using unpaved haul/access roads to, from, and within a site
- ~~208.13~~**209.13** Disturbed surface areas associated with a site
- ~~208.14~~**209.14** Installing initial landscapes using mechanized equipment
- 209210** **DUST SUPPRESSANT** – Water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer or any other dust palliative, which is not prohibited for ground surface application by the U.S. Environmental Protection Agency (EPA) or the Arizona Department of Environmental Quality (ADEQ) or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.

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- ~~210~~**211 EARTHMOWING OPERATION** – The use of any equipment for an activity which may generate fugitive dust, such as but not limited to, the following activities: cutting and filling, grading, leveling, excavating, trenching, loading or unloading of bulk materials, demolishing, blasting, drilling, adding to or removing bulk materials from open storage piles, back filling, soil mulching, landfill operations, or weed abatement by discing or blading.
- 211.1** Cutting and filling
- 211.2** Grading
- 211.3** Leveling
- 211.4** Excavating
- 211.5** Trenching
- 211.6** Loading or unloading of bulk materials
- 211.7** Demolishing
- 211.8** Blasting
- 211.9** Drilling
- 211.10** Adding bulk materials to or removing bulk materials from open storage piles
- 211.11** Back filling
- 211.12** Soil mulching
- 211.13** Landfill operations
- 211.14** Weed abatement by discing or blading
- 212 EMERGENCY** - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- 213 EMERGENCY ACTIVITY** - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality.
- 214 END OF WORK DAY** - The end of a working period that may include one or more work shifts but not later than 8 pm.
- ~~211~~**215 FREEBOARD** – The vertical distance between the top edge of a cargo container area and the highest point at which the bulk material contacts the sides, front, and back of a cargo container area.
- ~~212~~**216 FUGITIVE DUST** - The particulate matter not collected by a capture system, that is entrained in the ambient air, and is caused from human and/or natural activities, such as, but not limited to, the movement of soil, vehicles, equipment, blasting, and wind. For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of these rules.
- ~~213~~**217 GRAVEL PAD** – A layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter, that is maintained at the point of intersection of a paved area accessible to the public and a work site entrance to dislodge mud, dirt, and/or debris from the tires of motor vehicles and/or haul trucks, prior to leaving the work site. A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater.
- ~~214~~**218 GRIZZLY** – A device (i.e., rails, pipes, or grates) used to dislodge mud, dirt, and/or debris from the tires and undercarriage of motor vehicles and/or haul trucks prior to leaving the work site.
- ~~215~~**219 HAUL TRUCK** - Any fully or partially open-bodied self-propelled vehicle including any non-motorized attachments, such as, but not limited to, trailers or other conveyances that are connected to or propelled by the actual motorized portion of the vehicle used for transporting bulk materials.
- ~~216~~**220 MOTOR VEHICLE** – A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.
- ~~217~~**221 NORMAL FARM CULTURAL PRACTICE** – All activities by the owner, lessee, agent, independent contractor, and/or supplier conducted on any facility for the production of crops and/or nursery plants. Disturbances of the field surface caused by turning under stalks, tilling, leveling, planting, fertilizing, or harvesting are included in this definition.
- ~~218~~**222 OFF-ROAD VEHICLE** – Any self-propelled conveyance specifically designed for off-road use, including, but not limited to, off-road or all-terrain equipment, trucks, cars, motorcycles, motorbikes, or motorbuggies.

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- 219 ~~OPEN AREAS AND VACANT LOTS~~—Any of the following described in Section 219.1 through Section 219.4 of this rule. For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one open area or vacant lot.
- 219.1 ~~An unsubdivided or undeveloped tract of land adjoining a developed or partially developed residential, industrial, institutional, governmental, or commercial area.~~
- 219.2 ~~A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature.~~
- 219.3 ~~A partially developed residential, industrial, institutional, governmental, or commercial lot.~~
- 219.4 ~~A tract of land, in the nonattainment area, adjoining agricultural property.~~
- 223** **OPEN STORAGE PILE** - Any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-06 or other equivalent method approved in writing by the Control Officer and the Administrator that the silt content is less than 5%.
- 220224** **OWNER AND/OR OPERATOR** – The person responsible for obtaining an earthmoving permit under Rule 200, Section 305, including, but not limited to, the property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of this rule.
- 221225** **PAVE** – To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).
- 226** **PROPERTY LINE** - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.
- 222227** **PUBLIC ROADWAYS** – Any roadways that are open to public travel.
- 223228** **ROUTINE** – Any dust generating operation which occurs more than 4 times per year or lasts 30 cumulative days or more per year.
- 224229** **SILT**– Any aggregate material with a particle size less than 75 micrometers in diameter, which passes through a No. 200 Sieve.
- 225230** **TRACKOUT/CARRYOUT** – Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public.
- 226231** **TRACKOUT CONTROL DEVICE** - A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved area accessible to the public that controls or prevents vehicular trackout.
- 227232** **UNPAVED HAUL/ACCESS ROAD** – Any on-site unpaved road used by commercial, industrial, institutional, and/or governmental traffic.
- 228233** **UNPAVED PARKING LOT** – Any area larger than 5,000 square feet that is not paved and that is used for parking, maneuvering, material handling, or storing motor vehicles and equipment. An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.
- 229234** **UNPAVED ROAD** – Any road or equipment path that is not paved. For the purpose of this rule, an unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.
- 230** ~~URBAN OR SUBURBAN OPEN AREA~~—The definition of urban or suburban open area is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.
- 231** ~~VACANT LOT~~—The definition of vacant lot is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.
- 232** ~~VACANT PARCEL~~—The definition of vacant parcel is included in Section 219-Definition Of Open Areas And Vacant Lots of this rule.
- 233235** **WIND-BLOWN DUST** - Visible emissions, from any disturbed surface area, that are generated by wind action alone.
- 234236** **WIND EVENT** – When the 60-minute average wind speed is greater than 25 miles per hour.
- 235237** **WORK SITE** – Any property upon which any dust generating operations and/or earthmoving operations occur.

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SECTION 300 – STANDARDS

301 **GENERAL REQUIREMENTS FOR DUST GENERATING OPERATIONS:** Any person engaged in a dust generating operation subject to this rule shall be subject to the standards and/or requirements of this rule before, after, and while conducting such dust generating operation, including during weekends, after work hours, and on holidays. Failure to comply with any one of the following requirements shall constitute a violation.

301.1 Visible emissions requirements from dust generating operations described in Section 303 of this rule.

301.2 Stabilization requirements described in Section 304 of this rule.

301.3 Control measures described in Section 305 of this rule.

301.4 Trackout, carry-out, spillage, and/or erosion requirements described in Section 306 of this rule.

301.5 Soil moisture requirements described in Section 307 of this rule.

301.6 Dust control training class requirements described in Section 309 of this rule.

301.7 Dust control permit requirements described in Section 401 of this rule.

301.8 Dust Control Plan requirements described in Section 402 of this rule.

301.9 Monitoring and recordkeeping requirements described in Section 500 of this rule.

301.10 Any other requirements of this rule.

302 **PERMIT REQUIREMENTS FOR DUST GENERATING OPERATIONS:**

302.1 No person shall commence construction of, operate, or make a modification to any dust generating operation when such dust generating operations disturb a total surface area of 0.10 acre (4,356 square feet) or more without first obtaining a permit or permit revision from the Control Officer.

302.2 No person shall commence construction of, operate, or make a modification to any dust generating operation that disturbs a total surface area of less than 0.10 acre (4,356 square feet) under common control that are either contiguous or separated only by a public or private roadway and that cumulatively equal or exceed 0.10 acre (4,356 square feet) in area without first obtaining a permit or permit revision from the Control Officer.

302.3 No person shall commence any routine dust generating operation at a site that has obtained or must obtain a Title V, Non-Title V, or General permit under Regulation II-Permits And Fees of these rules without first submitting to the Control Officer a Dust Control Plan.

302.4 The property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of this rule shall be responsible for obtaining a permit or permit revision from the Control Officer.

302.5 All permit applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision, which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of this rule.

302.6 The issuance of any permit or permit revision shall not relieve any person subject to the requirements of this rule from compliance with any Federal laws, Arizona laws, or these rules.

302.7 Any other law, regulation or permit shall not relieve any person from obtaining a permit or permit revision required under this rule.

301-303 **VISIBLE EMISSIONS REQUIREMENTS FOR DUST GENERATING OPERATIONS:** The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed 20% opacity as tested by methods described in Appendix C of these rules.

303.1 **Dust Generating Operation Opacity Limitation Requirement:** The owner and/or operator of a dust generating operation shall not allow visible fugitive dust emissions to exceed the limits listed in either one of the following:

- a. The owner and/or operator of a dust generating operation shall not cause or allow visible fugitive dust emissions to exceed 20% opacity.
- b. The owner and/or operator of a dust generating operation shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.

303.2 **Exemptions From Dust Generating Operation Opacity Limitation Requirement:**

- 301.1a. Wind Event:** Exceedances of the opacity limit described in Section 303.1(a) of this rule that occur due to a wind event shall constitute a violation of the opacity limit. However, it shall be an affirmative defense in an enforcement action if the owner and/or operator demonstrates all of the following conditions:

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- (1) All control measures required were followed and ~~± one~~ or more of the following control measures ~~in Tables 20 & 21 was~~ were applied and maintained;

(a) For dust generating operations:

- (i) Cease dust generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 miles per hour and if dust generating operations are ceased for the remainder of the work day, stabilize the area;
- (ii) Apply water or other suitable dust suppressant at least twice per hour to dust generating operations in the PM₁₀ nonattainment area and at least once per hour to dust generating operations outside the PM₁₀ nonattainment area;
- (iii) Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent method as approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent method approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content; or
- (iv) Implement Section 303.2(a)(1)(a)(ii) or Section 303.2(a)(1)(a)(iii) of this rule and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of wind-blown material leaving a site.

(b) For temporary disturbed surface areas, including but not limited to, after work hours, weekends, and holidays:

- (i) Uniformly apply and maintain surface gravel or dust suppressants;
- (ii) Apply water to all disturbed surface areas three times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of four times per day;
- (iii) Apply water on open storage piles at least twice per hour to temporary disturbed surface areas in the PM₁₀ nonattainment area and at least once per hour to temporary disturbed surface areas outside the PM₁₀ nonattainment area; or
- (iv) Cover open storage piles with tarps, plastic, or other material such that wind will not remove the covering(s).

- (2) ~~The 20% opacity exceedance~~ Exceedances of the opacity limit described in Section 303.1(a) of this rule could not have been prevented by better application, implementation, operation, or maintenance of control measures;

- (3) The owner and/or operator compiled and retained records, in accordance with Section 502-Recordkeeping of this rule; and

- (4) The occurrence of a wind event on the day(s) in question is documented by records. The occurrence of a wind event must be determined by the nearest ~~Maricopa County Environmental Services Department Air Quality Division~~ Maricopa County Air Quality Department monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked.

~~301.2b.~~ **Emergency Maintenance Of Flood Control Channels And Water Retention Basins:** ~~No opacity limitation shall~~ The opacity limit described in Section 303.1(a) of this rule shall not apply to emergency maintenance of flood control channels and water retention basins, provided that control measures are implemented.

~~301.3c.~~ **Vehicle Test And Development Facilities And Operations:** ~~No opacity limitation shall~~ The opacity limit described in Section 303.1(a) of this rule shall not apply to vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality, and/or commercial acceptance, if such testing is not feasible within enclosed facilities. However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule.

~~302.304~~ **STABILIZATION REQUIREMENTS FOR DUST GENERATING OPERATIONS:**

~~302.1304.1~~ **Unpaved Parking Lot:** The owner and/or operator of any unpaved parking lot shall not allow visible fugitive dust emissions to exceed 20% opacity and either Section 304.1(a) or Section 304.1(b) of this rule:

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- a. Shall not allow silt loading equal to or greater than 0.33 oz/ft², or
- b. Shall not allow the silt content to exceed 8%.

~~302.2~~**304.2 Unpaved Haul/Access Road:**

- a. The owner and/or operator of any unpaved haul/access road (whether including at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall not allow visible fugitive dust emissions to exceed 20% opacity and either Section 304.2(a)(1) or Section 304.2(a)(2) of this rule:
 - (1) Shall not allow silt loading equal to or greater than 0.33 oz/ft²; or
 - (2) Shall not allow the silt content to exceed 6%.
- b. The owner and/or operator of any unpaved haul/access road (including at a work site that is under construction or a work site that is temporarily or permanently inactive) shall, as an alternative to meeting the stabilization requirements for an unpaved haul/access road in Section 304.2(a) of this rule, limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this ~~subsection~~ section of this rule, the owner and/or operator must include, in a Dust Control Plan, the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.

~~302.3~~**304.3 Open Area And Vacant Lot Or Disturbed Surface Area:** The owner and/or operator of ~~an open area and/or vacant lot or~~ any disturbed surface area on which no activity is occurring (including at a work site that is under construction or a work site that is temporarily or permanently inactive) shall meet at least ~~± one~~ one of the standards described in ~~Sections 302.3(a) through 302.3(g)~~ Sections 304.3(a) through 304.3(g) below, as applicable. Should ~~a disturbed open area and/or vacant lot or~~ any disturbed surface area on which no activity is occurring contain more than one type of ~~disturbance~~ visibly distinguishable stabilization characteristics, soil, vegetation, or other characteristics, which are visibly distinguishable, the owner and/or operator shall test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, ~~according to the appropriate test methods in Appendix C of these rules, and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results in accordance with the appropriate test methods described in Section 501.2(c) of this rule and in Appendix C-Fugitive Dust Test Methods of these rules.~~ The owner and/or operator of such ~~inactive disturbed surface area~~ disturbed surface area on which no activity is occurring shall be considered in violation of this rule if the area is not maintained in a manner that meets at least ~~± one~~ one of the standards listed below, as applicable.

- a. Maintain a ~~visible~~ soil crust;
- b. Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;
- c. Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
- d. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;
- e. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;
- f. Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
- g. Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator. ~~of the Environmental Protection Agency (EPA).~~

~~302.4~~**304.4 Vehicle Test And Development Facilities And Operations:** No stabilization requirement shall apply to vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality, and/or commercial acceptance, if such testing is not feasible within enclosed facilities. However, all areas used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized after such testing, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. All areas not used to test and validate design integrity, product quality, and/or commercial acceptance shall be stabilized, in compliance with Appendix C-Fugitive Dust Test Methods of these rules. In addition, vehicle test and development facilities may require a Dust Control permit in accordance with Section 302 of this rule.

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- 305 CONTROL MEASURES FOR DUST GENERATING OPERATIONS:** When engaged in a dust generating operation, the owner and/or operator shall install, maintain, and use control measures, as applicable. The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting dust generating operations, including during weekends, after work hours, and on holidays. Control measures for specific dust generating operations are described in Section 305.1 through Section 305.12 of this rule.
- 305.1 Off-Site Hauling:** The owner and/or operator of a dust generating operation that involves off-site hauling shall implement the following control measures:
- a.** When cargo compartment is loaded:
 - (1)** Load all haul trucks such that the freeboard is not less than three inches;
 - (2)** Load all haul trucks such that at no time shall the highest point of the bulk material be higher than the highest point at which the bulk material contacts the sides, front, and back of a cargo container area;
 - (3)** Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
 - (4)** Cover cargo compartment with a tarp or other suitable closure.
 - b.** When cargo compartment is empty:
 - (1)** Clean the interior of the cargo compartment; or
 - (2)** Cover the cargo compartment with a tarp or other suitable closure.
 - c.** When off-site hauling, install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site.
- 305.2 Bulk Material Hauling/Transporting When On-Site Hauling/Transporting Within The Boundaries Of The Work Site But Not Crossing A Paved Area Accessible To The Public:** The owner and/or operator of a dust generating operation that involves bulk material hauling/transporting when on-site hauling/transporting within the boundaries of the work site but not crossing a paved area accessible to the public shall implement one of the following control measures:
- a.** Limit vehicle speed to 15 miles per hour or less while traveling on the work site;
 - b.** Apply water to the top of the load; or
 - c.** Cover haul trucks with a tarp or other suitable closure.
- 305.3 Bulk Material Hauling/Transporting When On-Site Hauling/Transporting Within The Boundaries Of The Work Site And Crossing And/Or Accessing A Paved Area Accessible To The Public:** The owner and/or operator of a dust generating operation that involves bulk material hauling/transporting when on-site hauling/transporting within the boundaries of the work site and crossing and/or accessing a paved area accessible to the public shall implement all of the following control measures:
- a.** Load all haul trucks such that the freeboard is not less than three inches;
 - b.** Load all haul trucks such that at no time shall the highest point of the bulk material be higher than the highest point at which the bulk material contacts the sides, front, and back of a cargo container area;
 - c.** Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
 - d.** When crossing and/or accessing a paved area accessible to the public, install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site.
- 305.4 Bulk Material Stacking, Loading, And Unloading Operations:** The owner and/or operator of a dust generating operation that involves bulk material stacking, loading, and unloading operations shall implement at least one of the following control measures:
- a.** Spray material with water, as necessary, prior to stacking, loading, and unloading and/or while stacking, loading, and unloading; or
 - b.** Spray material with a dust suppressant other than water, as necessary, prior to stacking, loading, and unloading and/or while stacking, loading, and unloading.
- 305.5 Open Storage Piles:** The owner and/or operator of a dust generating operation that involves an open storage pile shall implement the following control measures, as applicable:
- a.** Prior to and/or while conducting stacking, loading, and unloading operations, implement one of the following control measures:
 - (1)** Spray material with water, as necessary; or
 - (2)** Spray material with a dust suppressant other than water, as necessary.

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- b.** When not conducting stacking, loading, and unloading operations, implement one of the following control measures:
 - (1)** Cover all open storage piles with a tarp, plastic, or other material to prevent wind from removing the covering(s)/such that the covering(s) will not be dislodged by wind; or
 - (2)** Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent methods approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent methods approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content.
 - (3)** Maintain a soil crust; or
 - (4)** Implement the control measure described in Section 305.5(b)(2) or in Section 305.5(b)(3) of this rule and construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%.
- 305.6** **Unpaved Staging Areas, Unpaved Parking Areas, And Unpaved Material Storage Areas:** The owner and/or operator of a dust generating operation that involves unpaved staging areas, unpaved parking areas, and unpaved material storage areas shall implement one or more of the following control measures:
 - a.** Apply water so that the surface is visibly moist;
 - b.** Pave;
 - c.** Apply and maintain gravel, recycled asphalt, or other suitable material;
 - d.** Apply and maintain a suitable dust suppressant other than water; or
 - e.** Limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this section, the owner and/or operator shall provide to the Control Officer the maximum number of vehicle trips on the staging areas, parking areas, and/or material storage areas each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.
- 305.7** **Unpaved Haul/Access Roads:** The owner and/or operator of a dust generating operation that involves unpaved haul/access roads shall implement one or more of the following control measures:
 - a.** Apply water so that the surface is visibly moist;
 - b.** Pave;
 - c.** Apply and maintain gravel, recycled asphalt, or other suitable material;
 - d.** Apply and maintain a suitable dust suppressant other than water; or
 - e.** Limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this section of this rule, the owner and/or operator shall provide to the Control Officer the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.
- 305.8** **Weed Abatement By Discing Or Blading:** The owner and/or operator of a dust generating operation that involves weed abatement by discing or blading shall comply with all of the following control measures:
 - a.** Before weed abatement by discing or blading occurs, apply water;
 - b.** While weed abatement by discing or blading is occurring, apply water; and
 - c.** After weed abatement by discing or blading occurs, pave, apply gravel, apply water, apply a suitable dust suppressant other than water, or establish vegetative ground cover.
- 305.9** **Blasting Operations:** The owner and/or operator of a dust generating operation that involves blasting operations shall implement all of the following control measures:
 - a.** In wind gusts above 25 miles per hour, discontinue/cease blasting; and
 - b.** Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.
- 305.10** **Demolition Activities:** The owner and/or operator of a dust generating operation that involves demolition activities shall implement all of the following control measures:
 - a.** Apply water to demolition debris immediately following demolition activity; and
 - b.** Apply water to all disturbed soils surfaces to establish a crust and to prevent wind erosion.
- 305.11** **Disturbed Surface Areas:** The owner and/or operator of a dust generating operation that involves disturbed surface areas shall implement the following control measures, as applicable:

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- a. Before disturbed surface areas are created, implement one of the following control measures:
 - (1) Pre-water site to depth of cuts, allowing time for penetration; or
 - (2) Phase work to reduce the amount of disturbed surface areas at any one time.
- b. While disturbed surface areas are being created, implement one of the following control measures:
 - (1) Apply water or other suitable dust suppressant other than water;
 - (2) Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent method as approved by the Control Officer and the Administrator. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent method approved by the Control Officer and the Administrator, maintain at least 70% of the optimum soil moisture content; or
 - (3) Implement control measure described in Section 305.11(b)(1) or Section 305.11(b)(2) of this rule and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of windblown material leaving a site.
- c. When the dust generating operation is finished for a period of 30 days or longer - for longer than temporary pauses that occur during a dust generating operation, the owner and/or operator shall implement one or more of the following control measures within ten days following the completion of such dust generating operation:
 - (1) Pave, apply gravel, or apply a suitable dust suppressant other than water;
 - (2) Establish vegetative ground cover in sufficient quantity;
 - (3) Implement control measures described in Section 305.11(c)(1) or Section 305.11(c)(2) of this rule and restrict vehicle access to the area;
 - (4) Apply water and prevent access by fences, ditches, vegetation, berms, or other suitable barrier or means sufficient to prevent trespass as approved by the Control Officer; or
 - (5) Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.

305.12 Easements, Rights-Of-Way, And Access Roads For Utilities (Transmission Of Electricity, Natural Gas, Oil, Water, And Gas) Associated With Sources That Have A Non-Title V Permit, A Title V Permit, And/Or A General Permit Under These Rules: The owner and/or operator of a dust generating operation that involves an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) associated with sources that have a Title V permit, a Non-Title V permit, and/or a General permit under these rules shall implement at least one of the following control measures:

- a. Inside Area A, limit vehicle speed to 15 miles per hour or less and vehicle trips to no more than 20 per day per road;
- b. Outside Area A, limit vehicle trips to no more than 20 per day per road; or
- c. Implement control measures described in Section 305.7 of this rule.

306 TRACKOUT, CARRY-OUT, SPILLAGE, AND/OR EROSION: The owner and/or operator of a dust generating operation shall prevent and control trackout, carry-out, spillage, and/or erosion.

306.1 Trackout Control Device:

- a. **Criterion For Trackout Control Device:** Install, maintain and use a suitable trackout control device that prevents and controls trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site at all exits onto paved areas accessible to the public from both of the following:
 - (1) All work sites with a disturbed surface area of two acres or larger, and
 - (2) All work sites where 100 cubic yards of bulk materials are hauled on-site and/or off-site per day.
- b. **Control Measures:** Prevent trackout, carry-out, spillage, and/or erosion by implementing one of the following control measures:
 - (1) At all exits onto paved areas accessible to the public, install a wheel wash system;
 - (2) At all exits onto paved areas accessible to the public, install a gravel pad to comply with Section 216 of this rule;
 - (3) At all exits onto paved areas accessible to the public, install a grizzly or rumble grate that consists of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the grizzly or rumble grate; or
 - (4) Pave starting from the point of intersection with a paved area accessible to the public and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.

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306.2 Clean Up Of Trackout:

- a. Criterion For Clean Up Of Trackout:** Clean up, trackout, carry-out, spillage, and/or erosion from paved areas accessible to the public including curbs, gutters, and sidewalks, on the following time-schedule:
- (1)** Immediately, when trackout, carry-out, or spillage extends a cumulative distance of 25 linear feet or more; and
 - (2)** At the end of the workday, for all other trackout, carry-out, spillage, and/or erosion.
- b. Control Measures:**
- (1)** Operate a street sweeper or wet broom with sufficient water, including but not limited to kick broom, steel bristle broom, Teflon broom, vacuum, at the speed recommended by the manufacturer and at the frequency(ies) described in this section of this rule; or
 - (2)** Manually sweep-up deposits to comply with this section of this rule.

307 SOIL MOISTURE: If water is the chosen control measure in an approved Dust Control Plan, the owner and/or operator of a dust generating operation shall operate a water application system on-site (e.g., water truck, water hose) while conducting any earthmoving operations on disturbed surface areas 1 acre or larger, unless a soil crust is maintained or the soil is sufficiently damp to prevent loose grains of soil from becoming dislodged.

308 PROJECT INFORMATION SIGN FOR DUST GENERATING OPERATIONS: For all sites with a Dust Control permit that are five acres or larger, except for routine maintenance and repair done under a Dust Control permit-Block permit, the owner and/or operator shall erect and maintain a project information sign at the main entrance such that members of the public can easily view and read the sign at all times. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:

308.1 Project name and permittee's name;

308.2 Current Dust Control permit number and expiration date;

308.3 Name and local phone number of person(s) responsible for dust control matters;

308.4 Text stating: "Dust complaints? Call Maricopa County Air Quality Department - (Insert the accurate Maricopa County Air Quality Department complaint line telephone number)."

309 DUST CONTROL TRAINING CLASSES FOR DUST GENERATING OPERATIONS:

309.1 Basic Dust Control Training Class:

- a.** At least once every three years, the site superintendent or other designated on-site representative of the permit holder, if present at a site that has more than one acre of disturbed surface area that is subject to a permit issued by the Control Officer requiring control of PM₁₀ emissions from dust generating operation, shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.
- b.** At least once every three years, water truck and water-pull drivers shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.
- c.** All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Basic Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer. Completion of the Comprehensive Dust Control Training Class, as required in Section 309.2 of this rule, shall satisfy the requirement of this section of this rule.

309.2 Comprehensive Dust Control Training Class:

- a.** At least once every three years, the Dust Control Coordinator, who meets the requirements of Section 310 of this rule, shall successfully complete the Comprehensive Dust Control Training Class conducted or approved by the Control Officer.
- b.** All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Comprehensive Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer.

310 DUST CONTROL COORDINATOR FOR DUST GENERATING OPERATIONS:

310.1 The permittee for any site of five acres or more of disturbed surface area subject to a permit issued by the Control Officer requiring control of PM₁₀ emissions from dust generating operations shall have on-site at least one Dust Control Coordinator trained in accordance with Section 309.2 of this rule at all times during primary dust generating operations related to the purposes for which the Dust Control permit was obtained.

310.2 The Dust Control Coordinator shall have full authority to ensure that dust control measures are implemented on-site, including conducting inspections, deployment of dust suppression resources, and modifications or shut-down of activities as needed to control dust.

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- 310.3** The Dust Control Coordinator shall be responsible for managing dust prevention and dust control on the site.
- 310.4** At least once every three years, the Dust Control Coordinator shall successfully complete a Comprehensive Dust Control Training Class conducted or approved by the Control Officer.
- 310.5** The Dust Control Coordinator shall have a valid dust training certification identification card readily accessible on-site while acting as a Dust Control Coordinator.
- 310.6** The requirement for a Dust Control Coordinator shall lapse when all of the following actions/events/procedures occur:
- a.** The area of disturbed surface area becomes less than five acres;
 - b.** The previously disturbed surface areas have been stabilized in accordance with/in compliance with the standards and/or requirements of this rule; and
 - c.** The Dust Control permit holder provides notice to the Control Officer of acreage stabilization.
- 310.7** The permittee, who is required to obtain a single permit for multiple non-contiguous sites that is issued by the Control Officer and that requires control of PM₁₀ emissions from dust generating operations, shall have on sites with greater than one acre of disturbed surface area at least one individual who is designated by the permittee as a Dust Control Coordinator trained in accordance with Section 309.1 of this rule.
- a.** The Dust Control Coordinator shall be present on-site at all times during primary dust generating activities that are related to the purposes for which the permit was obtained.
 - b.** The requirements of Section 310.7 of this rule shall not apply to the permittee subject to Section 309.1 of this rule.

303 **DUST CONTROL PLAN REQUIRED:**

- 303.1** The owner and/or operator of a dust-generating operation shall submit to the Control Officer a Dust Control Plan with any permit applications that involve earthmoving operations with a disturbed surface area that equals or exceeds 0.10 acre, including both of the following situations:
- a.** When submitting an application for an earthmoving permit involving earthmoving operations that would equal or exceed 0.10 acre, and
 - b.** Before commencing any routine dust-generating operation at a site that has obtained or must obtain a Title V, Non Title V, or general permit under Regulation II Permits And Fees of these rules.
- Compliance with this section does not affect an owner and/or operator's responsibility to comply with the other standards of this rule. The Dust Control Plan shall describe all control measures to be implemented before, after, and while conducting any dust-generating operation, including during weekends, after work hours, and on holidays.
- 303.2** A Dust Control Plan shall, at a minimum, contain all the information described in Section 304 of this rule. The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit. Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this rule. Regardless of whether an approved Dust Control Plan is in place or not, the owner and/or operator of a dust-generating operation is still subject to all requirements of this rule at all times. In addition, the owner and/or operator of a source with an approved Dust Control Plan is still subject to all of the requirements of this rule, even if such owner and/or operator is complying with the approved Dust Control Plan.
- 303.3** At least one primary control measure and one contingency control measure must be identified in the Dust Control Plan for all fugitive dust sources. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan under Section 305 of this rule.
- 303.4** A Dust Control Plan shall not be required for any of the following activities:
- a.** To play on or maintain a field used for non-motorized sports;
 - b.** For landscape maintenance, which, for the purpose of this rule, does not include grading, trenching, nor or any other mechanized surface disturbing activities; and
 - c.** To establish initial landscapes or to redesign existing landscapes of legally-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, city parks, county regional parks, ballfields, camp sites, and playgrounds at camp sites; hiking paths, horse trails, and bicycle paths that are used exclusively for purposes other than travel by motor vehicles; (for the purpose of this rule, establishing initial landscapes or redesigning existing landscapes does not include grading, trenching, or any other mechanized surface disturbing activities).

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- 304 ELEMENTS OF A DUST CONTROL PLAN: A Dust Control Plan shall contain, at a minimum, all of the following information:
- 304.1 Name(s), address(es), and phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust generating operation.
- 304.2 A drawing, on 8½" x 11" paper, that shows:
- a. Entire project site/facility boundaries;
 - b. Acres to be disturbed with linear dimensions;
 - c. Nearest public roads;
 - d. North arrow; and
 - e. Planned exit locations onto paved areas accessible to the public.
- 304.3 Control measures, or a combination thereof, to be applied to all actual and potential dust generating operations, before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.
- a. All required control measures from Tables 1-21 and at least one contingency control measure must be identified, for all dust generating operations. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure(s) is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan under Section 305 of this rule.
 - b. Alternatively, a control measure(s) that is not listed in Tables 1-21 of this rule may be chosen, provided that such control measure(s) is implemented to comply with the standard(s) described in Section 301 and Section 302 of this rule, as determined by the corresponding test method(s), as applicable, and meets other applicable standard(s) set forth in this rule.
 - c. If complying with Section 302.2(b) Stabilization Requirements For Fugitive Dust Sources Unpaved Haul/Access Road of this rule, the Dust Control Plan must include the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).
- 304.4 Dust suppressants to be applied, including all of the following product specifications or label instructions for approved usage:
- a. Method, frequency, and intensity of application;
 - b. Type, number, and capacity of application equipment; and
 - c. Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.
- 304.5 Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved and/or access point join paved areas accessible to the public.
- 304.6 For construction projects one acre or larger, except for routine maintenance and repair done under a block permit, a statement disclosing which of the four designated texture(s) of soil described in Appendix F of these rules is naturally present at or will be imported to the dust generating operation. The measured soil content at a particular site shall take precedence over any mapped soil types, and whenever soils have been tested at a particular site, the test results should be relied on rather than the map in Appendix F.
- 305 DUST CONTROL PLAN REVISIONS:
- 305.1 If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any dust generating operation still exceed standards in Section 301 and Section 302 of this rule, then the Control Officer shall issue a written notice to the owner and/or operator of the dust generating operation explaining such determination.
- 305.2 The owner and/or operator of a dust generating operation shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the approved Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule.
- 306 CONTROL MEASURES:
- 306.1 The owner and/or operator of a dust generating operation shall implement control measures before, after, and while conducting operations, including during weekends, after work hours, and on holidays, in accordance with Section 304.3 and Tables 1-21 of this rule.
- 306.2 For the purpose of this rule, any control measure that is implemented must achieve the applicable standard(s) described in Sections 301 and 302 of this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule.

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306.3 Failure to comply with the provisions of Section 308 (Work Practices) of this rule, as applicable, and/or of an approved Dust Control Plan, is deemed a violation of this rule.

306.4 Regardless of whether a dust generating operation is in compliance with an approved Dust Control Plan, or there is no approved dust control plan, the owner and/or operator of a dust generating operation is still subject to all requirements of this rule at all times.

307 **PROJECT INFORMATION SIGN:** For all sites with an earthmoving permit that are five acres or larger, except for routine maintenance and repair done under a block permit, the owner and/or operator shall erect and maintain a project information sign at the main entrance, that is readable by the public. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:

307.1 Project name and permit holder,

307.2 Earthmoving Permit number,

307.3 Name and phone number of person(s) responsible for conducting the project, and

307.4 Text stating: "Dust Complaints? Call Maricopa County Environmental Services Department (insert the current/accurate phone number for the complaint phone line)."

308 **WORK PRACTICES:** When engaged in the following specific activities, the owner and/or operator of a dust generating operation shall comply with the following work practices in addition to implementing, as applicable, the control measures described in Tables 1-21 of this rule.

308.1 **Bulk Material Hauling Off Site Onto Paved Areas Accessible to the Public:** Notwithstanding other sections of this rule, the owner and/or operator of a dust generating operation and the owner and/or operator of a haul truck shall do all of the following:

a. Load all haul trucks such that the freeboard is not less than three inches;

b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s);

c. Cover all haul trucks with a tarp or other suitable closure; and

d. Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

308.2 **Bulk Material Hauling On Site Within the Boundaries of The Work Site:** When crossing a paved area accessible to the public while construction is underway, the owner and/or operator of a dust generating operation shall do all of the following:

a. Load all haul trucks such that the freeboard is not less than three inches;

b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and

c. Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site. Examples of trackout control devices are described in Table 17 of this rule.

308.3 **Trackout, Carry Out, Spillage, and/or Erosion:** The owner and/or operator of a dust generating operation shall do all of the following:

a. Install, maintain and use a suitable trackout control device (examples of trackout control devices are described in Table 17 Trackout Control of this rule) that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such operation at all exits onto paved areas accessible to the public from both of the following:

(1) All work sites with a disturbed surface area of two acres or larger, and

(2) All work sites where 100 cubic yards of bulk materials are hauled on-site and/or off-site per day.

b. Clean up, trackout, carry out, spillage, and/or erosion, on the following time schedule:

(1) Immediately, when trackout, carry out, or spillage extends a cumulative distance of 50 linear feet or more; and

(2) At the end of the workday, for all other trackout, carry out, spillage, and/or erosion.

308.4 **Unpaved Haul/Access Roads:** The owner and/or operator of a dust generating operation shall implement one or more control measure(s) described in Table 3 Unpaved Haul/Access Roads of this rule, before using or maintaining unpaved haul/access roads.

308.5 **Easements, Rights Of Way, and Access Roads for Utilities (Electricity, Natural Gas, Oil, Water, and Gas Transmission) Associated with Sources that have a Non-Title V Permit, a Title V Permit, and/or a General Permit under These Rules:** The owner and/or operator of a dust generating operation shall do at least one of the following:

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- a. Inside the PM₁₀ nonattainment area, restrict vehicular speeds to 15 miles per hour and vehicular trips to no more than 20 per day per road;
 - b. Outside the PM₁₀ nonattainment area, restrict vehicular trips to no more than 20 per day per road; or
 - e. Implement control measures, as described in Table 3 Unpaved Haul/Access Roads of this rule.
- 308.6 Open Storage Piles: For the purpose of this rule, an open storage pile is any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and covers a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-96A or other equivalent method approved in writing by the Control Officer and the Administrator of EPA, that the silt content is less than 5%. The owner and/or operator of such dust generating operation shall comply with all of the following:
- a. Prior to and/or while conducting stacking, loading, and unloading operations, comply with one of the following work practices:
 - (1) Spray material with water, as necessary; or
 - (2) Spray material with a dust suppressant other than water, as necessary.
 - b. When not conducting stacking, loading, and unloading operations, comply with one of the following work practices:
 - (1) Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings;
 - (2) Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent methods approved by the Control Officer and the Administrator of EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent methods approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content;
 - (3) Meet one of the stabilization requirements described in Section 302.3 of this rule; or
 - (4) Construct and maintain wind barriers, storage silos, or a three sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If implementing this subsection, the owner and/or operator must also implement either Section 308.6(b)(2) or Section 308.6(b)(3) above.
- 308.7 Soil Moisture: If water is the chosen control measure in an approved Dust Control Plan, the owner and/or operator of a dust generating operation shall operate a water application system on site (e.g., water truck, water hose) while conducting any earthmoving operations on disturbed surface areas 1 acre or larger, unless a visible crust is maintained or the soil is sufficiently damp to prevent loose grains of soil from becoming dislodged.
- 308.8 Weed Abatement by Discing or Blading: The owner and/or operator of a dust generating operation shall comply with all of the following during weed abatement procedures by discing or blading:
- a. Apply water before weed abatement by discing or blading occurs; and
 - b. Apply water while weed abatement by discing or blading is occurring; and
 - e. Either:
 - (1) Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs; or
 - (2) Establish vegetative ground cover in sufficient quantity, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS

401 DUST CONTROL PLAN POSTING: The owner and/or operator of an earthmoving operation shall post a copy of the approved Dust Control Plan in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise keep a copy of the approved Dust Control Plan available on-site at all times. The owner and/or operator of a dust generating operation that has been issued a Block Permit shall not be required to keep a copy of the 8½" by 11" site drawing according to Section 304.2 of this rule. **DUST CONTROL PERMIT REQUIREMENTS:**

- 401.1** To apply for a Dust Control permit, applicants shall complete Maricopa County's "Application For Dust Control Permit" form and shall supply all information required by the following three sections of the form:
- a.** Applicant information;

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- b. Project information, which shall include a project site drawing and, if the site is one acre or larger, soil designations; and
 - c. Dust Control Plan, which shall meet the specifications described in Section 402 of this rule.
- 401.2** A Dust Control permit shall be granted subject to, but not limited to, the following conditions:
 - a. The permittee shall be responsible for ensuring that all persons abide by the conditions of the Dust Control permit and these regulations;
 - b. The permittee shall be responsible for supplying complete copies of the Dust Control permit including the Dust Control Plan, to all project contractors and subcontractors;
 - c. The permittee shall be responsible for all permit conditions, until a Permit Cancellation Request form has been submitted by the owner and/or operator and approved by the Control Officer;
 - d. The permittee shall be responsible for providing Dust Control Coordinator's/ Coordinators' name(s) and dust control training certification information/number(s) to the Control Officer and for keeping such information updated.
- 401.3** The signature of the permittee on the Dust Control permit application shall constitute agreement to accept responsibility for meeting the conditions of the Dust Control permit and for ensuring that control measures are implemented throughout the project site and during the duration of the project.
- 402** COMPLIANCE SCHEDULE: The requirements of this rule supersede any conflicting requirements that may be found in existing Dust Control Plans. **DUST CONTROL PLAN REQUIREMENTS:**
 - 402.1** For Earthmoving Permits: If any changes to a Dust Control Plan, associated with an Earthmoving Permit, are necessary as a result of the most recent revisions of this rule, such changes shall not be required until the Earthmoving Permit is required to be renewed. The owner and/or operator of a dust generating operation shall submit to the Control Officer a Dust Control Plan with any permit applications that involve dust generating operations with a disturbed surface area that equals or exceeds 0.10 acre (4,356 square feet) including both of the following situations:
 - a. When submitting an application for a Dust Control permit involving dust generating operations that would equal or exceed 0.10 acre (4,356 square feet), and
 - b. Before commencing any routine dust generating operation at a site that has obtained or must obtain a Title V, Non-Title V, or General permit under Regulation II-Permits And Fees of these rules.
 - 402.2** For Non-Title V Permits And For Title V Permits: If any changes to a Dust Control Plan, associated with a Non-Title V Permit or with a Title V Permit, are necessary as a result of the most recent revisions of this rule, then the owner and/or operator shall submit a revised Dust Control Plan to the Control Officer, according to the minor permit revision procedures described in Rule 220 and Rule 210 of these rules respectively, no later than 6 months after the effective date of the most recent revisions to this rule. The owner and/or operator of a dust generating operation shall submit to the Control Officer a Dust Control Plan with any application for a Dust Control permit. Applicants shall complete Maricopa County's "Application For Dust Control Permit" and submit such information as a Dust Control Plan. Applicants shall describe, in a Dust Control Plan, all control measures to be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.
 - 402.3** A Dust Control Plan shall, at a minimum, contain all of the following information:
 - a. Name(s), address(es), and phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust generating operation.
 - b. A drawing, on 8½" x 11" paper, that shows:
 - (1) Entire project site/facility boundaries,
 - (2) Acres to be disturbed with linear dimensions,
 - (3) Nearest public roads,
 - (4) North arrow, and
 - (5) Planned exit locations onto paved areas accessible to the public.
 - c. Appropriate control measures, or a combination thereof, as described in Section 305 of this rule, for every actual and potential dust generating operation.
 - (1) Control measures must be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.
 - (2) All required control measures and at least one contingency control measure must be identified for all dust generating operations. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure(s) is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan.

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(3) A control measure that is not listed in Section 305 of this rule may be chosen provided that such control measure is implemented to comply with the requirements described in Section 301 of this rule.

(4) If complying with Section 305.7-Control Measures For Dust Generating Operations-Unpaved Haul/Access Roads of this rule, the Dust Control Plan must include the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).

d. Dust suppressants to be applied, including all of the following product specifications or label instructions for approved usage:

(1) Method, frequency, and intensity of application;

(2) Type, number, and capacity of application equipment; and

(3) Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.

e. Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved and/or access points join paved areas accessible to the public.

402.4 The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit, as described in Rule 200-Permit Requirements of these rules. Failure to comply with the provisions of an approved Dust Control Plan is deemed a violation of this rule.

402.5 For construction projects one acre or larger, except for routine maintenance and repair done under a Dust Control permit-Block permit, a statement disclosing which of the four designated texture(s) of soil described in Appendix F of these rules is naturally present at or will be imported to the dust generating operation. The measured soil content at a particular site shall take precedence over any mapped soil types, and whenever soils have been tested at a particular site, the test results should be relied on rather than the map in Appendix F of these rules.

402.6 At least one primary control measure and one contingency control measure must be identified in the Dust Control Plan for all dust generating sources. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s). If the identified contingency control measure is effective to comply with all of the requirements of this rule, the owner and/or operator need not revise the Dust Control Plan.

403 DUST CONTROL PLAN REVISIONS:

403.1 If Required By The Control Officer:

a. If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any dust generating operation still exceed the standards of this rule, then the Control Officer shall issue a written notice to the owner and/or operator of the dust generating operation explaining such determination.

b. The owner and/or operator of a dust generating operation shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the approved Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule.

403.2 If Requested By The Permittee:

a. If the acreage of a project changes, the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.

b. If the permit holder changes, the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.

c. If the name(s), address(es), or phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust generating operation change, the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.

d. If the activities related to the purposes for which the Dust Control permit was obtained change, the owner and/or operator shall request a Dust Control Plan revision. Such Dust Control Plan revision shall be filed in the manner and form prescribed by the Control Officer.

403.3 If Rule 310 Is Revised:

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- a. If any changes to a Dust Control Plan are necessary as a result of the most recent revisions of this rule, such changes to the Dust Control Plan shall not be required until the associated Dust Control permit is required to be renewed.
- b. If any changes to a Dust Control Plan, associated with a Title V permit or with a Non-Title V permit, are necessary as a result of the most recent revisions of this rule, then the owner and/or operator shall submit a revised Dust Control Plan to the Control Officer, according to the minor permit revision procedures described in Rule 210 or in Rule 220 of these rules respectively, no later than six months after the effective date of the most recent revisions to this rule.

404 DUST CONTROL PERMIT-BLOCK PERMIT REQUIREMENTS:

404.1 A Dust Control permit-Block permit application may be submitted to the Control Officer, if one or more of the activities listed in this section of this rule are conducted and if such activities occur at more than one site (i.e., projects that involve multiple small areas scattered throughout Maricopa County, including but not limited to, fiber optic cable installation and natural gas line extension). New construction shall obtain a separate Dust Control permit.

- a. Routine operation (i.e., municipalities, governmental agencies, and utilities that are responsible for the repeat maintenance of infrastructure, including but not limited to, weed control around a prison, canal road grading, and road shoulder grading).
- b. Maintenance (i.e., municipalities, governmental agencies, and utilities that are responsible for the repeat maintenance of infrastructure, including but not limited to, weed control around a prison, canal road grading, and road shoulder grading).
- c. Expansion or extension of utilities, paved roads, unpaved roads, road shoulders, alleys, and public rights-of-way at non-contiguous sites by municipalities, governmental agencies, and utilities.

404.2 When completing and submitting a Dust Control permit-Block permit application, the owner and/or operator shall comply with the following requirements:

- a. A Dust Control Plan that meets the criteria described in Section 402 of this rule and applies to all sites shall be submitted to the Control Officer with the Dust Control permit-Block permit application.
- b. A list of all sites, including the location and size of each site, shall be submitted to the Control Officer with the Dust Control permit-Block permit application.
- c. For any project not listed in the Dust Control permit-Block permit application, the applicant shall notify the Control Officer in writing at least three working days prior to commencing the dust generating operation. The notice shall include the site location, size, type of activity, and start date.

404.3 The dust generating operation(s) shall commence within 12 months of the Dust Control permit-Block permit issuance.

404.4 The Dust Control permit-Block permit will cover crews that work for the municipalities and/or utilities, including subcontractors. However, municipalities and/or utilities shall retain overall authority for dust control on the project.

405 APPROVAL OR DENIAL OF PERMIT APPLICATIONS FOR DUST GENERATING OPERATIONS: The Control Officer shall take final action on a Dust Control permit application, a Dust Control permit revision, or a Dust Control permit-block permit within 14 calendar days of the filing of the complete application. The Control Officer shall notify the applicant in writing of his approval or denial.

406 TERMS FOR PERMITS FOR DUST GENERATING OPERATIONS: A Dust Control permit issued according to this rule shall be issued for a period of one year from the date of issuance. Should the project last longer than one year from the date the permit was issued, the permittee shall re-apply for a Dust Control Permit at least 14 calendar days prior to the expiration date of the original permit.

407 DEFACING, ALTERING, FORGING, COUNTERFEITING, OR FALSIFYING PERMITS FOR DUST GENERATING OPERATIONS: A person shall not willfully deface, alter, forge, counterfeit, or falsify any Dust Control permit issued under the provisions of this rule.

408 FEES FOR PERMITS FOR DUST GENERATING OPERATIONS: No Dust Control permit is valid until the applicable Dust Control permit fee has been received and until the Dust Control permit is issued by the Control Officer.

409 POSTING OF PERMITS FOR DUST GENERATING OPERATIONS: A Dust Control permit and a Dust Control Plan, as approved by the Control Officer, shall be posted in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise be kept available on-site at all times.

410 COMPLIANCE SCHEDULE: The newly amended provisions of this rule shall become effective upon adoption of this rule. An owner and/or operator of a dust generating operation subject to this rule shall meet all applicable

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provisions of this rule upon adoption of the newly amended provisions of this rule and according to the following schedule:

410.1 Basic Dust Control Training Class: No later than December 31, 2008, a site superintendent or other designated on-site representative of the permit holder and water truck and water pull drivers for each site shall have successfully completed the Basic Dust Control Training Class, as described in Section 309.1 of this rule.

410.2 Dust Control Coordinator: No later than June 30, 2008, any site and/or any contiguous site under common control of five acres or more of disturbed surface area subject to a permit shall, at all times during primary dust generating operations related to the purposes for which the Dust Control permit was obtained, have on-site at least one individual designated by the permit holder as a Dust Control Coordinator, as described in Section 310 of this rule.

SECTION 500 - MONITORING AND RECORDS

501 COMPLIANCE DETERMINATION: To determine compliance with the visible emissions requirements in Section 303 of this rule and with the stabilization requirements in Section 304 of this rule, the following test methods shall be followed:

501.1 Opacity Observations:

- a. **Dust Generating Operations:** Opacity observations of a source engaging in dust generating operations shall be conducted in accordance with Appendix C, Section 3-Time Averaged Methods Of Visual Opacity Determination Of Emissions From Dust Generating Operations of these rules.
- b. **Unpaved Parking Lot:** Opacity observations of any unpaved parking lot shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots of these rules.
- c. **Unpaved Haul/Access Road:** Opacity observations of any unpaved haul/access road (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots of these rules.

501.2 Stabilization Observations:

- a. **Unpaved Parking Lot:** Stabilization observations for unpaved parking lots shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots of these rules. When more than ~~± one~~ one test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods ~~constitutes~~ shall constitute a violation of this rule.
- b. **Unpaved Haul/Access Road:** Stabilization observations for unpaved haul/access roads (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots of these rule. When more than ~~± one~~ one test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods ~~constitutes~~ shall constitute a violation of this rule.
- c. ~~Open Area And Vacant Lot~~ **Disturbed Surface Area:** Stabilization observations for ~~an open area and vacant lot or~~ any disturbed surface area on which no activity is occurring (whether at a work site that is under construction, at a work site that is temporarily or permanently inactive) shall be conducted in accordance with at least one of the techniques described in ~~subsection~~ Section 501.2(c)(1) through subsection Section 501.2(c)(7) below, as applicable. The owner and/or operator of such inactive disturbed surface area shall be considered in violation of this rule if such inactive disturbed surface area is not maintained in a manner that meets at least ~~± one~~ one of the standards described in ~~subsection 302.3~~ Section 304.3 of this rule, as applicable.
 - (1) Appendix C, Section 2.3-Test Methods For Stabilization-~~Visible Soil~~ Crust Determination-The Drop Ball/Steel Ball Test of these rules for a visible crust; or
 - (2) Appendix C, Section 2.4-Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)-Sieving Field Procedure of these rules for threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher; or
 - (3) Appendix C, Section 2.5-Test Methods For Stabilization-Determination Of Flat Vegetative Cover of these rules for flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%; or

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- (4) Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%; or
- (5) Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or
- (6) Appendix C, Section 2.7-Test Methods For Stabilization-Rock Test Method of these rules for a percent cover that is equal to or greater than 10%, for non-erodible elements; or
- (7) An alternative and equivalent test method approved in writing by the Control Officer and the Administrator ~~of the EPA~~.

502 RECORDKEEPING:

502.1 Any person who conducts dust generating operations that require a Dust Control Plan shall keep ~~a daily written log~~ a written record of self-inspection on each day dust generating operations are conducted. Self-inspection records shall include daily inspections for crusted or damp soil, trackout conditions and clean-up measures, daily water usage, and dust suppressant application. Such written record shall also include the actual application or implementation of the control measures delineated in the approved Dust Control Plan (including records on any street sweeping, water applications, and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps). following information:

- a. Method, frequency, and intensity of application or implementation of the control measures;
- b. Method, frequency, and amount of water application to the site;
- c. Street sweeping frequency;
- d. Types of surface treatments applied to and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps;
- e. Types and results of test methods conducted;
- f. If contingency control measures are implemented, actual application or implementation of contingency control measures and why contingency control measures were implemented;
- g. List of subcontractors' names and registration numbers updated when changes are made; and
- h. Names of employee(s) who successfully completed dust control training class(es) required by Section 309 of this rule, date of the class(es) that such employee(s) successfully completed, and name of the agency/representative who conducted such class(es).

502.2 Any person who conducts dust generating operations that do not require a Dust Control Plan shall compile and retain records (including records on any street sweeping, water applications, and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps) that provide evidence of control measure application, by indicating the type of treatment or control measure, extent of coverage, and date applied.

502.3 Upon verbal or written request by the Control Officer, the log or the records and supporting documentation shall be provided ~~within~~ as soon as possible but no later than 48 hours, excluding weekends. If the Control Officer is at the site where requested records are kept, records shall be provided without delay.

503 RECORDS RETENTION: ~~Copies~~ Any person who conducts dust generating operations that require a Dust Control Plan shall retain copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation ~~shall be retained~~ for at least six months following the termination of the dust generating operation and for at least two years from the date such records were initiated. Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained for at least 1 year from the date such records were initiated. If a person has obtained a Title V Permit and is subject to the requirements of this rule, then such person shall retain records required by this rule for at least ~~5~~ five years from the date such records are established.

504 TEST METHODS ADOPTED BY REFERENCE: The test methods listed in this section are adopted by reference. These adoptions by reference include no future editions or amendments. Copies of the test methods listed in this section are available for review at the Maricopa County Environmental Services Department Maricopa County Air Quality Department, 1001 North Central Avenue, Phoenix, AZ, 85004-1942.

504.1 ASTM Method ~~C136-96A~~ C136-06 ("Standard Test Method For Sieve Analysis Of Fine And Coarse Aggregates"), ~~1996~~ 2006 edition.

504.2 ASTM Method ~~D2216-98~~ D2216-05 ("Standard Test Method For Laboratory Determination Of Water (Moisture) Content Of Soil And Rock By Mass"), ~~1998~~ 2005 edition.

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504.3 ASTM Method ~~D1557-91(1998)~~ D1557-02e1 ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)), ~~1998~~ 2002 edition.

Table 1

Vehicle Use In Open Areas And Vacant Lots

- a. An owner and/or operator must implement one of the following control measures:
1. Restrict trespass by installing signs; or
 2. Install physical barriers such as curbs, fences, gates, posts, signs, shrubs, and/or trees to prevent access to the area.

Table 2

Unpaved Parking Lots

- a. An owner and/or operator must implement one of the following control measures:
1. Pave;
 2. Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with Section 302.1 of this rule; or
 3. Apply a suitable dust suppressant in compliance with Section 302.1 of this rule.
- b. Suggested additional control measure for contingency plans:
1. Limit vehicle speeds to 15 m.p.h. on the site.

Table 3

Unpaved Haul/Access Roads

- a. An owner and/or operator must implement one of the following control measures:
1. Limit vehicle speed to 15 m.p.h or less and limit vehicular trips to no more than 20 day;
 2. Apply water, so that the surface is visibly moist in compliance with Section 302.2 of this rule;
 3. Pave;
 4. Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with Section 302.2 of this rule; or
 5. Apply a suitable dust suppressant, in compliance with Section 302.2 of this rule.

Table 4

Open Areas And Vacant Lots

- a. An owner and/or operator must implement one of the following control measures to comply with Section 302.3 of this rule:
1. Pave, apply gravel, or apply a suitable dust suppressant;
 2. Establish vegetative ground cover in sufficient quantity; or
 3. Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.

Table 5

Disturbed Surface Areas—Pre Activity Work Practices

- a. Before activity begins, an owner and/or operator must implement one of the following control measures:
1. Pre-water site to depth of cuts, allowing time for penetration; or
 2. Phase work to reduce the amount of disturbed surface areas at any one time.

Table 6

Disturbed Surface Areas—Work Practices During Operations

- a. During operations, an owner and/or operator must implement one of the following control measures:
1. Apply water or other suitable dust suppressant, in compliance with Section 301 of this rule;
 2. Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent method as approved by the Control Officer and the Administrator of EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent method approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or
 3. Implement (a)(1) or (a)(2) above and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of windblown material leaving a site.
- b. Suggested additional control measure for contingency plans:

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1. Limit vehicle speeds to 15 m.p.h on the work site.

Table 7

Disturbed Surface Areas—Temporary Stabilization (Up To 8 Months)
During Weekends, After Work Hours, And On Holidays

- a. An owner and/or operator must implement one of the following control measures to comply with Section 302.3 of this rule:
 1. Pave, apply gravel, or apply a suitable dust suppressant;
 2. Establish vegetative ground cover in sufficient quantity; or
 3. Implement (a)(1) or (a)(2), above, and restrict vehicular access to the area.

Table 8

Disturbed Surface Areas—Permanent Stabilization
(Required Within 8 Months Of Ceasing Dust Generating Operations)

- a. An owner and/or operator must implement one of the following control measures to comply with Section 302.3 of this rule:
 1. Pave, apply gravel, or apply a suitable dust suppressant;
 2. Establish vegetative ground cover in sufficient quantity; or
 3. Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.

Table 9

Blasting Operations

- a. An owner and/or operator must implement all of the following control measures:
 1. In wind gusts above 25 m.p.h., discontinue blasting; and
 2. Pre water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.

Table 10

Demolition Activities

- a. An owner and/or operator must implement all of the following control measures:
 1. Stabilize demolition debris. Apply water to debris immediately following demolition activity; and
 2. Stabilize surrounding area immediately following demolition activity. Water all disturbed soil surfaces to establish a crust and prevent wind erosion of soil.
- b. Suggested additional control measure for contingency plans:
 1. Thoroughly clean blast debris from paved and other surfaces following demolition activity.

Table 11

Bulk Material Handling Operations
Work Practices For Stacking, Loading, And Unloading Operations

- a. An owner and/or operator must implement one of the following control measures:
 1. Spray material with water, as necessary, prior to stacking, loading, and unloading, and/or while stacking, loading, and unloading;
 2. Spray material with a dust suppressant other than water, as necessary, prior to stacking, loading, and unloading, and/or while stacking, loading, and unloading.
- b. Suggested additional control measures for contingency plans:
 1. Pre water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.
 2. Remove material from the downwind side of the storage pile when safe to do so.
 3. Empty loader bucket slowly and keep loader bucket close to the truck to minimize the drop height while dumping.

Table 12

Open Storage Piles
When Not Conducting Stacking, Loading, And Unloading Operations

- a. An owner and/or operator must implement one of the following control measures:
 1. Cover open storage piles with tarps, plastic, or other material such that the coverings will not be dislodged by wind;

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2. Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent methods approved by the Control Officer and the Administrator of the EPA; or for areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent methods approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the soil moisture content;
3. Meet the stabilization requirements described in Section 302.3 of this rule; or
4. Implement (a)(2) or (a)(3), above, and construct and maintain wind barriers, storage silos, or a three sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%.

Table 13

Bulk Material Hauling/Transporting Within The Boundaries Of The Work Site
When Crossing A Paved Area Accessible To The Public
While Construction Is Underway

- a. An owner and/or operator must implement all of the following control measures:
 1. Load all haul trucks such that the freeboard is not less than 3 inches when crossing a paved area accessible to the public while construction is underway;
 2. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s);
 3. Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site.
- b. Suggested additional control measure for contingency plans:
 1. Limit vehicle speeds to 15 m.p.h. on the work site.

Table 14

Bulk Material Hauling/Transporting When On Site Hauling/Transporting
Within The Boundaries Of The Work Site But Not Crossing
A Paved Area Accessible To The Public

- a. An owner and/or operator must implement one of the following control measures:
 1. Limit vehicular speeds to 15 m.p.h. or less while traveling on the work site;
 2. Apply water to the top of the load in compliance with Section 301 of this rule; or
 3. Cover haul trucks with a tarp or other suitable closure.

Table 15

Bulk Material Hauling/Transporting Off Site Hauling/Transporting
Onto Paved Areas Accessible To The Public

- a. An owner and/or operator must implement all of the following control measures:
 1. Cover haul trucks with a tarp or other suitable closure;
 2. Load all haul trucks such that the freeboard is not less than 3 inches;
 3. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
 4. Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

Table 16

Clean Up Of Trackout, Carry Out, Spillage, And Erosion

- a. An owner and/or operator must implement one of the following control measures:
 1. Operate a street sweeper or wet broom with sufficient water, at the speed recommended by the manufacturer and at the frequency(ies) described in Section 308.3 of this rule; or
 2. Manually sweep up deposits in compliance with Section 308.3 of this rule.

Table 17

Trackout Control

- a. An owner and/or operator must implement all of the following control measures:
 1. Immediately clean up trackout that exceeds 50 feet. All other trackout must be cleaned up at the end of the workday; and

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2. In accordance with Section 308.3(a), prevent trackout by implementing one of the following control measures:
 - i. At all access points, install a grizzly or wheel wash system.
 - ii. At all access points, install a gravel pad at least 30 feet wide, 50 feet long, and 6 inches deep, in compliance with Section 213 of this rule.
 - iii. Pave starting from the point of intersection with a paved area accessible to the public and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
- b. Suggested additional control measures for contingency plans:
 1. Clearly establish and enforce traffic patterns to route traffic over selected trackout control devices.
 2. Limit site accessibility to routes with trackout control devices in place by installing effective barriers on unprotected routes.
 3. Pave construction activity roadways as soon as possible.

Table 18

Weed Abatement By Discing Or Blading

- a. An owner and/or operator must implement all of the following control measures:
 1. Pre-water site;
 2. Apply water while weed abatement by discing or blading is occurring; and
 3. Stabilize area by implementing either one of the following:
 - i. Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs; or
 - ii. Establish vegetative ground cover in sufficient quantity, in compliance with Section 302.3 of this rule, after weed abatement by discing or blading occurs.
- b. Suggested additional control measures for contingency plans
 1. Limit vehicle speeds to 15 m.p.h. during discing and blading operations.

Table 19

Easements, Rights Of Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water, And Gas Transmission)
Associated With Sourcees

That Have A Non-Title V Permit, A Title V Permit,
And/Or A General Permit Under These Rules

- a. An owner and/or operator must implement one of the following control measures:
 1. Inside the PM10 nonattainment area, restrict vehicular speeds to 15 m.p.h. and vehicular trips to no more than 20 per day per road;
 2. Outside the PM10 nonattainment area, restrict vehicular trips to no more than 20 per day per road; or
 3. Implement control measures, as described in Table 3 (Unpaved Haul/Access Roads) of this rule.

Note: For Tables 20 & 21, control measures in [brackets] are to be applied only to dust-generating operations outside the nonattainment area.

Table 20

Wind Event Control Measures-Dust-Generating Operations

- a. An owner and/or operator must implement one of the following control measures:
 1. Cease dust-generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 m.p.h. and if dust-generating operations are ceased for the remainder of the work day, stabilize the area;
 2. Apply water or other suitable dust suppressant at least twice [once] per hour, in compliance with Section 301 of this rule;
 3. Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent method as approved by the Control Officer and the Administrator of EPA. For areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91 (1998) or other equivalent method approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or
 4. Implement (a)(2) or (a)(3), above, and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of wind-blown material leaving a site.

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Table 21

Wind Event Control Measures Temporary Disturbed Surface Areas
(After Work Hours, Weekends, Holidays)

- a. An owner and/or operator must implement one of the following control measures:
1. Uniformly apply and maintain surface gravel or dust suppressants, in compliance with Section 302.3 of this rule;
 2. Apply water to all disturbed surface areas 3 times per day. If there is any evidence of wind blown dust, increase watering frequency to a minimum of 4 times per day;
 3. Apply water on open storage piles at least twice [once] per hour, in compliance with Section 302.3 of this rule; or
 4. Cover open storage piles with tarps, plastic, or other material such that wind will not remove the covering(s).
- b. Suggested additional control measures for contingency plans:
1. Implement a combination of the control measures listed in (a)(1) through (a)(4), above.

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 310.01

FUGITIVE DUST FROM

OPEN AREAS, VACANT LOTS, UNPAVED PARKING LOTS, AND UNPAVED ROADWAYS

NON-TRADITIONAL SOURCES OF FUGITIVE DUST

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**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 310.01**

**FUGITIVE DUST FROM
OPEN AREAS, VACANT LOTS, UNPAVED PARKING LOTS, AND UNPAVED ROADWAYS
NON-TRADITIONAL SOURCES OF FUGITIVE DUST**

SECTION 100 - GENERAL

~~101 PURPOSE: To limit the emission of particulate matter into the ambient air from open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310 Fugitive Dust of these rules, and which do not require a permit nor a Dust Control Plan. The effect of this rule shall be to fine particulate matter (PM₁₀) entrained into the ambient air as a result of the impact of human activities by requiring measures to prevent, reduce, or mitigate particulate matter emissions. To minimize the amount of fugitive dust entrained into the ambient air from non-traditional sources of fugitive dust by requiring measures to prevent, reduce, or mitigate fugitive dust emissions.~~

~~102 APPLICABILITY: The provisions of this rule shall apply to open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not regulated by Rule 310 Fugitive Dust of these rules and which do not require a permit nor a Dust Control Plan. In addition, the provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and A.R.S. § 42-12152. The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4.~~

~~**102.1** The provisions of this rule shall apply to non-traditional sources of fugitive dust that are conducted in Maricopa County, except for those dust generating operations listed in Section 103 of this rule.~~

~~**102.2** The provisions of this rule shall apply to any open area or vacant lot that is not defined as agricultural land and is not used for agricultural purposes according to Arizona Revised Statutes (A.R.S.) § 42-12151 and A.R.S. § 42-12152.~~

~~**103 EXEMPTIONS:**~~

~~**103.1** The provisions of this rule shall not apply to normal farm cultural practices according to A.R.S. § 49-457 and A.R.S. § 49-504.4.~~

~~**103.2** The provisions of this rule shall not apply to dust generating operations that are subject to the standards and/or requirements described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.~~

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- 103.3** The provisions of this rule shall not apply to emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status.
- 103.4** An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in this rule.
- 103.5** Establishing initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports shall not be considered a dust generating operation. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching, performed to establish initial landscapes or to redesign existing landscapes.
- 103.6** Fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules.
- 103.7** Vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot.
- 103.8** An unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.

SECTION 200 - DEFINITIONS: See Rule 100-General Provisions And Definitions of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply:

201 **ANIMAL WASTE** - Any animal excretions and mixtures containing animal excretions.

202 **AREA A** - As defined in A.R.S. § 49-541(1), the area in Maricopa County delineated as follows:

Township 8 North, Range 2 East and Range 3 East

Township 7 North, Range 2 West through Range 5 East

Township 6 North, Range 5 West through Range 6 East

Township 5 North, Range 5 West through Range 7 East

Township 4 North, Range 5 West through Range 8 East

Township 3 North, Range 5 West through Range 8 East

Township 2 North, Range 5 West through Range 8 East

Township 1 North, Range 5 West through Range 7 East

Township 1 South, Range 5 West through Range 7 East

Township 2 South, Range 5 West through Range 7 East

Township 3 South, Range 5 West through Range 1 East

Township 4 South, Range 5 West through Range 1 East

203 **AREA ACCESSIBLE TO THE PUBLIC** – Any parking lot or public roadway that is accessible to public travel primarily for purposes unrelated to the dust generating operation.

201-204 **BULK MATERIAL** - Any material, including, but not limited to, the following materials ~~earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter (i.e., aggregate base course (ABC)), earth, soil, dirt, mud, demolition debris, cotton, trash, cinders, pumice, rock, saw dust, feeds, grains, fertilizers, fluff (from shredders), and dry concrete,~~ that are capable of producing fugitive dust.:

204.1 Earth

204.2 Rock

204.3 Silt

204.4 Sediment

204.5 Sand

204.6 Gravel

204.7 Soil

204.8 Fill

204.9 Aggregate less than 2 inches in length or diameter (i.e., aggregate base course [ABC])

204.10 Dirt

204.11 Mud

204.12 Demolition debris

204.13 Cotton

204.14 Trash

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204.15 Cinders

204.16 Pumice

204.17 Saw dust

204.18 Feeds

204.19 Grains

204.20 Fertilizers

204.21 Fluff from shredders

204.22 Dry concrete

~~202~~205 **CHEMICAL/ORGANIC STABILIZER** - Any non-toxic chemical or organic dust suppressant, other than water, which meets any specifications, criteria, or tests required by any Federal, State, or local water agency and is not prohibited for use by any applicable law, rule, or regulation.

~~203~~206 **CONTROL MEASURE** - A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.

~~204~~207 **DISTURBED SURFACE AREA** – A portion of the earth's surface ~~(or material placed thereupon) which or~~ material placed on the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, ~~thereby increasing the potential for the emission of fugitive dust. if~~ the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 300 of this rule.

208 **DUST GENERATING OPERATION** - Any activity capable of generating fugitive dust, including but not limited to, the following activities:

208.1 Land clearing, maintenance, and land cleanup using mechanized equipment

208.2 Earthmoving

208.3 Weed abatement by discing or blading

208.4 Excavating

208.5 Construction

208.6 Demolition

208.7 Bulk material handling (e.g., bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)

208.8 Storage and/or transporting operations (e.g., open storage piles, bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)

208.9 Operation of any outdoor equipment

208.10 Operation of motorized machinery

208.11 Establishing and/or using staging areas, parking areas, material storage areas, or access routes to and from a site

208.12 Establishing and/or using unpaved haul/access roads to, from, and within a site

208.13 Disturbed surface areas associated with a site

208.14 Installing initial landscapes using mechanized equipment

~~205~~209 **DUST SUPPRESSANT** - Water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer, or any other dust palliative, which is not prohibited for ground surface application by the Environmental Protection Agency (EPA) or the Arizona Department of Environmental Quality (ADEQ), or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.

210 **EMERGENCY** - A situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

211 **EMERGENCY ACTIVITY** - Repairs that are a result of an emergency which prevents or hinders the provision of electricity, the distribution/collection of water, and the availability of other utilities due to unforeseen circumstances that are beyond the routine maintenance and repair due to normal wear conducted by a utility or municipality.

212 **FEED LANE ACCESS AREAS** - Roads providing access from the feed preparation areas to and including feed land areas at a livestock activity. These access roads are typically used to distribute feed from feed trucks to the animals.

206 **FEEDLOTS AND/OR LIVESTOCK AREAS** - Any area on which an operation directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity exists.

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- ~~207~~**213** **FUGITIVE DUST** - The particulate matter not collected by a capture system, that is entrained in the ambient air and is caused from human and/or natural activities, such as, but not limited to, movement of soil, vehicles, equipment, blasting, and wind. ~~For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from pile drivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules.~~
- 214** **GRAVEL PAD** – A layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter, that is maintained at the point of intersection of a paved area accessible to the public and a work site entrance to dislodge mud, dirt, and/or debris from the tires of motor vehicles and/or haul trucks, prior to leaving the work site. A gravel pad shall consist of one inch to 3 inches rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50 feet long or the length of the longest haul truck, whichever is greater.
- 215** **GRIZZLY** - A device (i.e., rails, pipes, or grates) used to dislodge mud, dirt, and/or debris from the tires and undercarriage of motor vehicles and/or haul trucks prior to leaving the work site.
- 216** **LIVESTOCK ACTIVITIES** - Any activity directly related to feeding animals, displaying animals, racing animals, exercising animals, and/or for any other such activity, including but not limited to, livestock arenas, horse arenas, and feed lots.
- ~~208~~**217** **MOTOR VEHICLE** - A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.
- 218** **NON-TRADITIONAL SOURCE OF FUGITIVE DUST** - A source of fugitive dust that is located at a source that does not require any permit under these rules. The following non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Rule 310.01-Fugitive Dust From Non-Traditional Sources Of Fugitive Dust of these rules:
- 218.1** Vehicle use in open areas and vacant lots
 - 218.2** Open areas and vacant lots
 - 218.3** Unpaved parking lots
 - 218.4** Unpaved roadways (including alleys)
 - 218.5** Livestock activities
 - 218.6** Erosion-caused deposition of bulk materials onto paved surfaces
 - 218.7** Easements, rights-of-way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission)
- ~~209~~**219** **NORMAL FARM CULTURAL PRACTICE** - All activities by the owner, lessee, agent, independent contractor, and/or supplier conducted on any facility for the production of crops and/or nursery plants. Disturbances of the field surface caused by turning under stalks, tilling, leveling, planting, fertilizing, or harvesting are included in this definition.
- ~~210~~**220** **OFF-ROAD VEHICLE** - Any self-propelled conveyance specifically designed for off-road use, including, but not limited to, off-road or all-terrain equipment, trucks, cars, motorcycles, motorbikes, or motorbuggies.
- ~~211~~**221** **OPEN AREAS AND VACANT LOTS** - Any of the following described in ~~Section 211.4~~ Section 221.1 through Section 211.4 ~~Section 221.3 of this rule. For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot.~~
- ~~211.1~~**221.1** An unsubdivided or undeveloped tract of land adjoining a developed or a partially developed residential, industrial, institutional, governmental, or commercial area.
 - ~~211.2~~**221.2** A subdivided residential, industrial, institutional, governmental, or commercial lot that contains no approved or permitted buildings or structures of a temporary or permanent nature.
 - ~~211.3~~**221.3** A partially developed residential, industrial, institutional, governmental, or commercial lot.
 - ~~211.4~~ A tract of land, in the PM₁₀ nonattainment area, adjoining agricultural property.
- ~~212~~**222** **OWNER AND/OR OPERATOR** - Any person who owns, leases, operates, controls, or supervises a fugitive dust source subject to the requirements of this rule.
- ~~213~~**223** **PAVE** - To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).
- ~~214~~**224** **PM₁₀ NONATTAINMENT AREA** - An area designated by the EPA as exceeding national ambient air quality standards based upon data collected thru air quality monitoring. The geographical boundary of Maricopa County's PM₁₀ nonattainment area is defined as the rectangle determined by and including the following townships and ranges: T6N, R3W; T6N, R7E; T2S, R3W; T2S, R7E; and T1N, R8E. Maricopa County's PM₁₀ nonattainment area

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includes the following cities: Surprise, Peoria, Glendale, Phoenix, Scottsdale, Tempe, Mesa, Gilbert, Chandler, Avondale, Buckeye, and Goodyear.

- 225** **PROPERTY LINE** - The boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.
- ~~245~~**226** **PUBLIC ROADWAYS** - Any roadways that are open to public travel.
- 227** **TRACKOUT/CARRYOUT** – Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public.
- 228** **TRACKOUT CONTROL DEVICE** - A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved area accessible to the public that controls or prevents vehicular trackout.
- 229** **UNPAVED ACCESS CONNECTIONS** - Any unpaved road connection with a paved public road.
- ~~246~~**230** **UNPAVED PARKING LOT** - Any area ~~larger than 5,000 square feet~~ that is not paved and that is used for parking, maneuvering, material handling, or storing motor vehicles and equipment. An unpaved parking lot includes, but is not limited to, automobile impound yards, wrecking yards, automobile dismantling yards, salvage yards, material handling yards, and storage yards. For the purpose of this definition, maneuvering shall not include military maneuvers or exercises conducted on federal facilities.
- ~~247~~**231** **UNPAVED ROADWAY (INCLUDING ALLEYS)** - A road that is not paved and that is owned by Federal, State, county, municipal, or other governmental or quasi-governmental agencies. ~~For the purpose of this rule, an unpaved roadway (including alleys) is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.~~ An unpaved roadway (including alleys) includes designated or opened trail systems and service roads regardless of surface composition.
- ~~248~~**232** **VACANT LOT** - The definition of vacant lot is included in ~~Section 241~~ Section 221-Definition Of Open Areas And Vacant Lots of this rule.

SECTION 300 - STANDARDS

301 **GENERAL REQUIREMENTS FOR NON-TRADITIONAL SOURCES OF FUGITIVE DUST:**

- 301.1** An owner and/or operator of a non-traditional source of fugitive dust shall be subject to the standards and/or requirements described in this rule. Failure to comply with any such standards and/or requirements is deemed a violation of this rule.
- 301.2** When an owner and/or operator of a non-traditional source of fugitive dust fails to stabilize disturbed surfaces of vacant lots as required in Section 302.4 and Section 302.5 of this rule, the Control Officer shall commence enforcement of those rule provisions regarding the stabilization of disturbed surfaces of vacant lots that include the following:
- a.** Reasonable written notice to the owner or the owner's authorized agent or the owner's statutory agent that the unpaved disturbed surface of a vacant lot is required to be stabilized. The notice shall be given not less than 30 days before the day set for compliance and shall include a legal description of the property and the estimated cost to the county for the stabilization if the owner does not comply. The notice shall be either personally served or mailed by certified mail to the owner's statutory agent, to the owner at the owner's last known address or to the address to which the tax bill for the property was last mailed.
 - b.** Authority to enter upon any said land/property where such non-traditional source of fugitive dust exists/where such disturbed surface area exists and to take remedial and/or corrective action as may be deemed appropriate to cope with and relieve, reduce, remedy, and/or stabilize such non-traditional source of fugitive dust/such disturbed surface area. Any cost incurred in connection with any such remedial or corrective action by the Maricopa County Air Quality Department or any person acting for the Maricopa County Air Quality Department shall be reimbursed by the owner and/or operator of such non-traditional source of fugitive dust.

302 **CONTROL MEASURES FOR NON-TRADITIONAL SOURCES OF FUGITIVE DUST:**

- 302.1** When engaged in the activities described in Section 302.4 through Section 302.10 of this rule, the owner and/or operator of a non-traditional source of fugitive dust shall implement control measures as described in Section 302.4 through Section 302.10 of this rule, as applicable.
- 302.2** Control measures shall be implemented to achieve the visible emissions requirements, as required for each activity and the compliance determination in Section 501 of this rule.

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- 302.3** Failure to implement control measures as required by this rule, as applicable, and/or failure to maintain stabilization of a non-traditional source of fugitive dust with adequate surface crusting to prevent wind erosion as measured by the requirements in this rule shall be deemed a violation of this rule.
- 302.4** **Vehicle Use In Open Areas And Vacant Lots:** The owner and/or operator of a non-traditional source of fugitive dust that involves vehicle use in open areas and vacant lots shall be subject to the visible emissions requirements described in Section 302.4(a) of this rule and, unless otherwise specified and/or required, shall comply with the control measures described in Section 302.4(b) of this rule and the additional requirements described in Section 302.4(c) of this rule.
- a. Visible Emissions Requirements:** The owner and/or operator of a non-traditional source of fugitive dust that involves vehicle use in open areas and vacant lots shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.
- b. Control Measures:**
- (1)** Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access by installing barriers, curbs, fences, gates, posts, shrubs, trees, or other effective control measures; or
 - (2)** Prevent motor vehicle and/or off-road vehicle trespassing, parking, and/or access by posting that consists of one of the following:
 - (a)** A sign written in compliance with ordinance(s) of local, County, State, or Federal sign standards.
 - (b)** An order of a government land management agency.
 - (c)** Most current maps approved by a government land management agency.
 - (d)** Virtual posting a government land management agency.
 - (3)** Uniformly apply and maintain surface gravel or chemical/organic stabilizers to all areas disturbed by motor vehicles and/or off-road vehicles; or
 - (4)** Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator.
- c. Additional Requirements:**
- (1)** If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed by being driven over and/or used by motor vehicles, by off-road vehicles, or for material dumping, then the owner and/or operator shall implement one or more of the control measures described in Section 302.4(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of disturbance or vehicle use on open areas and vacant lots.
 - (2)** Within 30 calendar days following the initial discovery by the Control Officer of disturbance or vehicle use on open areas and vacant lots, the owner and/or operator shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented to prevent such disturbance or vehicle use on open areas and vacant lots.
 - (3)** The owner and/or operator shall implement all control measures necessary to limit the disturbance or vehicle use on open areas and vacant lots in accordance with the requirements of this rule. Control measure(s) shall be considered effectively implemented when the open areas and vacant lots achieve the compliance determinations described in Section 501 of this rule.
 - (4)** Once a control measure in Section 302.4(b) of this rule has been effectively implemented, then such open area or vacant lot is subject to the requirements of Section 302.5-Open Areas And Vacant Lots of this rule.
 - (5)** Use of or parking on open areas and vacant lots by the owner and/or operator of such open areas and vacant lots shall not be considered vehicle use in open areas and vacant lots and shall not be subject to the requirements of Section 302.4(b) and Section 302.4(c)(1) through Section 302.4(c)(4) of this rule. Such open areas and vacant lots shall still achieve the compliance determinations described in Section 501 of this rule.
 - (6)** Establishing initial landscapes without the use of mechanized equipment or conducting landscape maintenance without the use of mechanized equipment shall not be considered vehicle use in open areas and vacant lots and shall not be subject to the requirements of Section 302.4(b) and Section 302.4(c)(1) through Section 302.4(c)(4) of this rule. Such open areas and vacant lots shall still achieve the compliance determinations described in Section 501 of this rule.
- 302.5** **Open Areas And Vacant Lots:** The owner and/or operator of a non-traditional source of fugitive dust that involves open areas and vacant lots shall be subject to the visible emissions requirements described in Section 302.5(a) of this rule and, unless otherwise specified and/or required, shall comply with the control

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measures described in Section 302.5(b) of this rule and the additional requirements described in Section 302.5(c) of this rule.

- a. Visible Emissions Requirements:** The owner and/or operator of a non-traditional source of fugitive dust that involves open areas and vacant lots shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.
- b. Control Measures:**
 - (1) Establish vegetative ground cover on all disturbed surface areas. Such control measure(s) must be maintained and reapplied, if necessary. Stabilization shall be achieved, per this control measure, within eight months after the control measure has been implemented.
 - (2) Apply a dust suppressant to all disturbed surface areas.
 - (3) Restore all disturbed surface areas within 60 calendar days following the initial discovery by the Control Officer of the disturbance, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions. Such control measure(s) must be maintained and reapplied, if necessary. Stabilization shall be achieved, per such control measure, within eight months after such control measure has been implemented.
 - (4) Uniformly apply and maintain surface gravel.
 - (5) Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator.
- c. Additional Requirements:**
 - (1) If open areas and vacant lots are 0.10 acre (4,356 square feet) or larger and have a cumulative of 500 square feet or more that are disturbed and if such disturbed area remains unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator shall implement one or more of the control measures described in Section 302.5(b) of this rule within 60 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots.
 - (2) Within 30 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots, the owner and/or operator shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented.
 - (3) Control measure(s) shall be considered effectively implemented when the disturbance on the open areas and vacant lots achieves the compliance determinations described in Section 501 of this rule.

302.6 Unpaved Parking Lots: The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved parking lots shall be subject to the requirements described in Section 302.6(a) of this rule and, unless otherwise specified and/or required, shall comply with one of the control measures described in Section 302.6(b) of this rule and the additional requirements described in Section 302.6(c) of this rule.

- a. Visible Emissions Requirements And Stabilization Requirements:**
 - (1) The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved parking lots shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.
 - (2) The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved parking lots shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.6(a)(2)(a) or Section 302.6(a)(2)(b) of this rule:
 - (a) Shall not allow silt loading equal to or greater than 0.33 oz/ft²; or
 - (b) Shall not allow the silt content to exceed 8%.
- b. Control Measures:**
 - (1) Pave;
 - (2) Apply dust suppressants other than water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site;
 - (3) Uniformly apply and maintain surface gravel; or
 - (4) Apply water and install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site.
- c. Additional Requirements:**

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- (1) The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 302.6(b) of this rule on any surface area(s) of the lot on which vehicles enter, park, and exit.
 - (a) If an unpaved parking lot is utilized for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b) of this rule during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented.
 - (b) If an unpaved parking lot is utilized for more than 35 days during the calendar year, the owner and/or operator shall implement one or more of the control measures described in Section 302.6(b)(1) through Section 302.6(b)(3) of this rule during the period that the unpaved parking lot is utilized for vehicle parking and shall restrict vehicle access to only those areas upon which a control measure has been implemented.
- (2) Control measure(s) shall be considered effectively implemented when the unpaved parking lot achieves the compliance determinations described in Section 501 of this rule.
- (3) If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout.
- (4) Parking, maneuvering, ingress, and egress areas at developments other than residential buildings with four or fewer units shall be maintained with one or more of the following dustproof paving methods:
 - (a) Asphaltic concrete.
 - (b) Cement concrete.
 - (c) Penetration treatment of bituminous material and seal coat of bituminous binder and a mineral aggregate.
 - (d) A stabilization method approved in writing by the Control Officer and the Administrator.
- (5) Parking, maneuvering, ingress, and egress areas 3,000 square feet or more in size at residential buildings with four or fewer units shall be maintained with a paving or stabilization method authorized by the county by code, ordinance, or permit.

302.7 Unpaved Roadways (Including Alleys): The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved roadways (including alleys) that are used by 150 vehicle trips or more per day in the PM₁₀ nonattainment area shall be subject to the stabilization requirements described in Section 302.7(a) of this rule and, unless otherwise specified and/or required, shall comply with one of the control measures described in Section 302.7(b) of this rule and the additional requirements described in Section 302.7(c) of this rule.

- a. **Stabilization Requirements:** The owner and/or operator of a non-traditional source of fugitive dust that involves unpaved roadways (including alleys) shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.7(a)(1) or Section 302.7(a)(2) of this rule:
 - (1) Shall not allow silt loading equal to or greater than 0.33 oz/ft²; or
 - (2) Shall not allow the silt content to exceed 6%.
- b. **Control Measures:**
 - (1) Pave;
 - (2) Apply dust suppressants other than water; or
 - (3) Uniformly apply and maintain surface gravel.
- c. **Additional Requirements:**
 - (1) If a person allows 150 vehicle trips or more per day to use an unpaved roadway (including an alley) in the PM₁₀ nonattainment area, then such person shall first implement one of the control measures described in Section 302.7(b) of this rule.
 - (2) A person, who allows 150 vehicle trips or more per day to use an unpaved roadway (including an alley) in the PM₁₀ nonattainment area, shall be responsible for conducting vehicle counts/traffic counts to determine if 150 vehicle trips or more per day occur on an unpaved roadway (including an alley). Two separate 24-hour traffic counts shall be conducted. The average vehicle counts/traffic counts on the highest trafficked days shall be recorded and provided to the Control Officer in writing within 60 days of verbal or written request by the Control Officer.
 - (3) Control measure(s) shall be considered effectively implemented under the following conditions:

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- (a) When the unpaved roadway (including an alley) achieves the compliance determinations described in Section 302.8(a) of this rule.
- (b) When one of the control measures described in Section 302.7(b) of this rule is implemented on 5 miles of unpaved roadways (including alleys) having vehicle traffic of 150 vehicle trips or more per day within one calendar year beginning in calendar year of 2008. If the control measure described in Section 302.7(b)(2) of this rule is implemented, the unpaved roadways (including alleys) must be maintained so as to comply with Appendix C of these rules.

302.8 Livestock Activities: The owner and/or operator of a non-traditional source of fugitive dust that involves livestock activities shall be subject to the visible emissions requirements described in Section 302.8(a) of this rule and, unless otherwise specified and/or required, shall comply with the control measures described in Section 302.8(b) of this rule and the additional requirements described in Section 302.8(c) of this rule.

a. Visible Emissions Requirements:

- (1) For unpaved access connections and unpaved feed lane access areas, the owner and/or operator shall not cause or allow visible fugitive dust emissions to exceed 20% opacity.
- (2) For corrals, pens, and arenas, the owner and/or operator shall not cause or allow visible fugitive dust emissions to exceed 20% opacity for a period aggregating more than three minutes in any 60-minute period.
- (3) The owner and/or operator shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.

b. Control Measures:

- (1) For unpaved access connections:
 - (a) Apply and maintain dust suppressants other than water; or
 - (b) Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase.
- (2) For unpaved feed lane access areas:
 - (a) Apply and maintain dust suppressants other than water; or
 - (b) Apply and maintain pavement, gravel (maintained to a depth of four inches), or asphaltic roadbase.
- (3) For bulk material hauling, including animal waste, off-site and crossing and/or accessing a paved area accessible to the public:
 - (a) Load all vehicles used to haul bulk material, including animal waste, such that the freeboard is not less than three inches;
 - (b) Prevent spillage or loss of bulk material, including animal waste, from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s);
 - (c) Cover cargo compartment with a tarp or other suitable closure; and
 - (d) Install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of motor vehicles that traverse the site.
- (4) For corrals, pens, and arenas:
 - (a) Apply water; or
 - (b) Install shrubs and/or trees within 50 feet to 100 feet of corrals, pens, and arenas.

c. Additional Requirements:

- (1) The owner and/or operator of livestock activities shall implement one of the control measures described in Section 302.8(b)(1), Section 302.8(b)(2), Section 302.8(b)(3), and Section 302.8(b)(4) of this rule, as applicable.
- (2) Control measure(s) shall be considered effectively implemented when the livestock activities achieve the compliance determinations described in Section 501 of this rule.
- (3) If trackout occurs, the owner and/or operator shall repair and/or replace the control measure(s) and shall clean-up immediately such trackout from paved areas accessible to the public including curbs, gutters, and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout.

302.9 Erosion-Caused Deposition Of Bulk Materials Onto Paved Surfaces: The owner and/or operator of a non-traditional source of fugitive dust that involves erosion-caused deposition of bulk materials onto paved surfaces shall comply with the control measures described in Section 302.9(a) of this rule and the additional requirements described in Section 302.9(b) of this rule.

a. Control Measures:

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- (1) Remove any and all such deposits by utilizing the appropriate control measures within 24 hours of the deposits' identification or prior to the resumption of traffic on pavement, where the pavement area has been closed to traffic; and
- (2) Dispose of deposits in such a manner so as not to cause another source of fugitive dust.

b. Additional Requirements:

- (1) In the event that erosion-caused deposition of bulk materials or other materials occurs on any adjacent paved roadway, paved parking lot, curb, gutter, or sidewalk, the owner and/or operator of the property from which the deposition eroded shall implement both of the control measures described in Section 302.9(a) of this rule.
- (2) Failure to comply with both of the control measures described in Section 302.9(a) of this rule shall constitute a violation of this rule.

302.10 Easements, Rights-Of-Way, And Access Roads For Utilities (Transmission Of Electricity, Natural Gas, Oil, Water, And Gas): The owner and/or operator of a non-traditional source of fugitive dust that involves easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas) that are used by 130 vehicle trips or more per day in Area A shall be subject to the stabilization requirements described in Section 302.10(a) of this rule and unless otherwise specified and/or required, comply with one of the control measures described in Section 302.10(b) of this rule and the additional requirements described in Section 302.10(c) of this rule.

a. Stabilization Requirements: The owner and/or operator of a non-traditional source of fugitive dust that involves easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas) shall not cause or allow visible fugitive dust emissions to exceed 20% opacity and either Section 302.10(a)(1) or Section 302.10(a)(2) of this rule:

- (1) Shall not allow silt loading equal to or greater than 0.33 oz/ft²; or
- (2) Shall not allow the silt content to exceed 6%.

b. Control Measures:

- (1) Pave;
- (2) Apply dust suppressants other than water;
- (3) Uniformly apply and maintain surface gravel; or
- (4) Install locked gates at each entry point.

c. Additional Requirements:

- (1) If an owner and/or operator allows 130 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in Area A, then such owner and/or operator shall first implement one of the control measures described in Section 302.10(b) of this rule.
- (2) A person, who allows 130 vehicle trips or more per day to use an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) in Area A, shall be responsible for conducting vehicle counts/traffic counts to determine if 130 vehicle trips or more per day occur on an easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas). Such person shall provide to the Control Officer written results of such vehicle counts/traffic counts within 60 days of verbal or written request by the Control Officer.
- (3) Control measure(s) shall be considered effectively implemented when the easement, right-of-way, and access road for utilities (transmission of electricity, natural gas, oil, water, and gas) achieves the compliance determinations described in Section 501 of this rule.

301 **VEHICLE USE IN OPEN AREAS AND VACANT LOTS:** If open areas and vacant lots are 0.10 acre or larger and have a cumulative of 500 square feet or more that are driven over and/or used by motor vehicles and/or off road vehicles, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 301.1 of this rule within 60 calendar days following the initial discovery of vehicle use on open areas and vacant lots. Within 30 calendar days following the initial discovery by the Control Officer of vehicle use on open areas and vacant lots, the owner and/or operator of such open areas and vacant lots shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented to prevent such vehicle use on open areas and vacant lots. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the open areas and vacant lots meet one of the stabilization limitations described in Section 301.2 of this rule. Once a control measure in Section 301.1 of this rule has been effectively implemented, then such open area or vacant lot is subject to the requirements of Section 302 (Open Areas And Vacant Lots) of this rule. Use of or parking on open areas and vacant lots by the owner and/or operator of such open areas and vacant lots and/or landscape maintenance of such open areas and vacant lots shall not be considered vehicle use in open

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areas and vacant lots, although such open areas and vacant lots shall still meet the stabilization limitations described in Section 301.2 of this rule. For the purpose of this rule, landscape maintenance does not include grading, trenching, nor any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.

301.1 Control Measures:

- a. Prevent motor vehicle and/or off road vehicle trespassing, parking, and/or access, by installing barriers, curbs, fences, gates, posts, signs (written in English and Spanish and in compliance with ordinance(s) of local jurisdictions), shrubs, trees, or other effective control measures.
- b. Uniformly apply and maintain surface gravel or chemical/organic stabilizers to all areas disturbed by motor vehicles and/or off road vehicles in compliance with one of the stabilization limitations described in Section 301.2 of this rule.
- c. Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator of the EPA.

301.2 Stabilization Limitations:

- a. A visible crust shall be implemented, as determined by Appendix C, Section 2.3 (Test Methods For Stabilization Visible Crust Determination) (The Drop Ball/Steel Ball Test) of these rules; or
- b. A threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher shall be implemented, as determined by Appendix C, Section 2.4 (Test Methods For Stabilization Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of these rules; or
- c. Flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50% shall be implemented, as determined by Appendix C, Section 2.5 (Test Methods For Stabilization Determination Of Flat Vegetative Cover) of these rules; or
- d. Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30% shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization Determination Of Standing Vegetative Cover) of these rules; or
- e. Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization Determination Of Standing Vegetative Cover) of these rules; or
- f. A percent cover that is equal to or greater than 10% for non-erodible elements shall be implemented, as determined by Appendix C, Section 2.7 (Test Methods For Stabilization Rock Test Method) of these rules; or
- g. An alternative test method approved in writing by the Control Officer and the Administrator of the EPA shall be implemented.

302 OPEN AREAS AND VACANT LOTS: If open areas and vacant lots have 0.5 acre or more of disturbed surface area and remain unoccupied, unused, vacant, or undeveloped for more than 15 days, then the owner and/or operator of such open areas and vacant lots shall implement one of the control measures described in Section 302.1 of this rule within 60 calendar days following the initial discovery of the disturbance on the open areas and vacant lots. Within 30 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots, the owner and/or operator of such open areas and vacant lots shall provide in writing to the Control Officer a description and date of the control measure(s) to be implemented. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the open areas and vacant lots meet one of the stabilization limitations described in Section 302.2 of this rule. Should an open area or vacant lot on which no activity is occurring contain more than one type of disturbance, soil, vegetation, or other characteristics that are visibly distinguishable, then each representative surface shall be tested separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, according to the appropriate test methods in Appendix C of these rules and included or eliminated from the total size assessment of disturbed surface area(s) depending on test method results.

302.1 Control Measures:

- a. Establish vegetative ground cover on all disturbed surface areas within 60 calendar days following the initial discovery of the disturbance. Such control measure(s) must be maintained and reapplied, if necessary, until the disturbed surface areas are stabilized, in compliance with one of the stabilization

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limitations described in Section 302.2 of this rule. Stabilization shall be achieved, per this control measure, within eight months after the control measure has been implemented.

- b. Apply a dust suppressant to all disturbed surface areas, in compliance with one of the stabilization limitations described in Section 302.2 of this rule.
- c. Restore all disturbed surface areas within 60 calendar days following the initial discovery of the disturbance, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions. Such control measure(s) must be maintained and reapplied, if necessary, until the disturbed surface areas are stabilized, in compliance with one of the stabilization limitations described in Section 302.2 of this rule. Stabilization shall be achieved, per such control measure, within eight months after such control measure has been implemented.
- d. Uniformly apply and maintain surface gravel, in compliance with one of the stabilization limitations described in Section 302.2 of this rule.
- e. Apply and maintain an alternative control measure approved in writing by the Control Officer and the Administrator of the EPA.

302.2 Stabilization Limitations:

- a. A visible crust shall be implemented, as determined by Appendix C, Section 2.3 (Test Methods For Stabilization Visible Crust Determination) (The Drop Ball/Steel Ball Test) of these rules; or
- b. A threshold friction velocity (TFV), corrected for non erodible elements of 100 cm/second or higher, shall be implemented, as determined by Appendix C, Section 2.4 (Test Methods For Stabilization Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of these rules; or
- c. Flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50% shall be implemented, as determined by Appendix C, Section 2.5 (Test Methods For Stabilization Determination Of Flat Vegetative Cover) of these rules; or
- d. Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30% shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization Determination Of Standing Vegetative Cover) of these rules; or
- e. Standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non erodible elements shall be implemented, as determined by Appendix C, Section 2.6 (Test Methods For Stabilization Determination Of Standing Vegetative Cover) of these rules; or
- f. A percent cover that is equal to or greater than 10% for non erodible elements shall be implemented, as determined by Appendix C, Section 2.7 (Test Methods For Stabilization Rock Test Method) of these rules; or
- g. An alternative test method approved in writing by the Control Officer and the Administrator of the EPA shall be implemented.

303 UNPAVED PARKING LOTS: The owner and/or operator of an unpaved parking lot shall implement one of the control measures described in Section 303.1 of this rule on any surface area(s) of the lot on which vehicles enter, park, and exit. For unpaved parking lots that are utilized intermittently, for a period of 35 days or less during the calendar year, the owner and/or operator shall implement one of the control measures described in Section 303.1 of this rule, during the period that the unpaved parking lots are utilized for vehicle parking. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the unpaved parking lot meets the stabilization and opacity limitations described in Section 303.2 of this rule.

303.1 Control Measures:

- a. Pave.
- b. Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 303.2 of this rule.
- c. Uniformly apply and maintain surface gravel, in compliance with the stabilization and opacity limitations described in Section 303.2 of this rule.

303.2 Stabilization And Opacity Limitations: For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from unpaved parking lots do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots) of these rules:

- a. Silt loading is equal to or greater than 0.33 oz/ft²; or

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- b. Silt content does not exceed 8%.
- 304 UNPAVED ROADWAYS (INCLUDING ALLEYS): If a person allows 150 vehicles or more per day to use an unpaved roadway (including alleys) in the PM₁₀ nonattainment area, then such person shall first implement one of the control measures described in Section 304.1 of this rule. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the unpaved roadway (including alleys) meets the stabilization and opacity limitation described in Section 304.2 of this rule.
- 304.1 Control Measures:
- a. Pave.
 - b. Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 304.2 of this rule.
 - c. Uniformly apply and maintain surface gravel, in compliance with the stabilization and opacity limitations described in Section 304.2 of this rule.
- 304.2 Stabilization And Opacity Limitations: For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from unpaved roadways (including alleys) do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots) of these rules:
- a. Silt loading is equal to or greater than 0.33 oz/ft²; or
 - b. Silt content does not exceed 6%.
- 305 FEEDLOTS AND/OR LIVESTOCK AREAS: The owner and/or operator of any feedlot and/or livestock area shall implement one of the control measures described in Section 305.1 of this rule. For the purpose of this rule, such control measure(s) shall be considered effectively implemented when the feedlot and/or livestock area meets the opacity limitation described in Section 305.2 of this rule.
- 305.1 Control Measures:
- a. Apply dust suppressants, in compliance with the opacity limitation described in Section 305.2 of this rule.
 - b. Uniformly apply and maintain surface gravel, in compliance with the opacity limitation described in Section 305.2 of this rule.
 - c. Install shrubs and/or trees within 50 feet to 100 feet of animal pens, in compliance with the opacity limitation described in Section 305.2 of this rule.
- 305.2 Opacity Limitation: For the purpose of this rule, control measures shall be considered effectively implemented when opacity observations for fugitive dust emissions from feedlots and/or livestock areas do not exceed 20% opacity, as determined by Appendix C, Section 3 (Visual Determination Of Opacity Of Emissions From Sources For Time Average Regulations) of these rules.
- 306 EROSION CAUSED DEPOSITION OF BULK MATERIALS ONTO PAVED SURFACES: In the event that erosion caused deposition of bulk materials or other materials occurs on any adjacent paved roadway or paved parking lot, the owner and/or operator of the property from which the deposition eroded shall implement both of the control measures described in Section 306.1 of this rule. For the purpose of this rule, such control measures shall be considered effectively implemented when the deposition meets the opacity limitation described in Section 306.2 of this rule. Exceedances of the opacity limitation, due to erosion caused deposition of bulk materials onto paved surfaces, shall constitute a violation of the opacity limitation.
- 306.1 Control Measures:
- a. Remove any and all such deposits by utilizing the appropriate control measures within 24 hours of the deposits' identification or prior to the resumption of traffic on pavement, where the pavement area has been closed to traffic; and
 - b. Dispose of deposits in such a manner so as not to cause another source of fugitive dust.
- 306.2 Opacity Limitation: For the purpose of this rule, control measures shall be considered effectively implemented when opacity observations for fugitive dust emissions from erosion caused deposition of bulk materials onto paved surfaces do not exceed 20% opacity, as described in Appendix C, Section 2.1 (Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots) of these rules.
- 307 EASEMENTS, RIGHTS OF WAY, AND ACCESS ROADS FOR UTILITIES (ELECTRICITY, NATURAL GAS, OIL, WATER, AND GAS TRANSMISSION): If an owner and/or operator allows 150 vehicles or more per day to use an easement, right of way, and access road for utilities (electricity, natural gas, oil, water, and gas transmission) in the PM₁₀ nonattainment area, then such owner and/or operator shall first implement one of the control measures described in Section 307.1 of this rule. For the purpose of this rule, such control measure(s) shall be considered

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effectively implemented, when the easement, right of way, and access road for utilities (electricity, natural gas, oil, water, and gas transmission) meet the stabilization and opacity limitation described in Section 307.2 of this rule.

307.1 Control Measures:

- a. ~~Pave.~~
- b. ~~Apply dust suppressants, in compliance with the stabilization and opacity limitations described in Section 307.2 of this rule.~~
- c. ~~Uniformly apply and maintain surface gravel, in compliance with the stabilization and opacity limitations described in Section 307.2 of this rule.~~

307.2 Stabilization And Opacity Limitations: ~~For the purpose of this rule, control measures shall be considered effectively implemented when stabilization and opacity observations for fugitive dust emissions from easements, rights of way, and access roads for utilities (electricity, natural gas, oil, water, and gas transmission) do not exceed 20% opacity and meet one of the following, as determined by Appendix C, Section 2.1 (Test Methods For Stabilization For Unpaved Roads And Unpaved Parking Lots) of these rules:~~

- a. ~~Silt loading is not equal to or greater than 0.33 oz/ft²; or~~
- b. ~~Silt content does not exceed 6%.~~

SECTION 400 - ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 - MONITORING AND RECORDS

501 STABILIZATION OBSERVATIONS COMPLIANCE DETERMINATION: To determine compliance with this rule, the following test methods shall be followed:

501.1 Opacity Observations:

- a. Opacity observations to measure visible emissions shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations). Emissions shall not exceed the applicable opacity standards of this rule for a period aggregating more than three minutes in any 60-minute period.
- b. Opacity observations to determine compliance with Sections 302.4, 302.6, 302.7, 302.8(a)(1), 302.8(a)(2), and 302.10 of this rule shall be conducted in accordance with the techniques specified in Appendix C (Fugitive Dust Test Methods) of these rules.

~~501.1~~ **501.2** Stabilization observations for unpaved parking lots and/or unpaved roadways (including alleys) shall be conducted in accordance with Appendix C, Section 2.1-Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots of these rules.

~~501.2~~ **501.3** Stabilization observations for an open area and vacant lot shall be conducted in accordance with the following:

- a. Appendix C, Section 2.3-Test Methods For Stabilization-~~Visible Soil~~ Crust Determination- The Drop Ball/~~Steel Ball~~ Test of these rules; or
- b. Appendix C, Section 2.4-Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)-Sieving Field Procedure of these rules, where the threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements is 100 cm/second or higher; or
- c. Appendix C, Section 2.5-Test Methods For Stabilization-Determination Of Flat Vegetative Cover of these rules, where flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) is equal to at least 50%; or
- d. Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules, where standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) is equal to or greater than 30%; or
- e. Appendix C, Section 2.6-Test Methods For Stabilization-Determination Of Standing Vegetative Cover of these rules, where the standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) is equal to or greater than 10% and where the threshold friction velocity, corrected for non-erodible elements, is equal to or greater than 43 cm/second; or
- f. Appendix C, Section 2.7-Test Methods For Stabilization-Rock Test Method of these rules where a percent cover is equal to or greater than 10% for non-erodible elements.
- g. An alternative test method approved in writing by the Control Officer and the Administrator ~~of the EPA.~~

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- 502 RECORDKEEPING:** Any person subject to the requirements of this rule shall compile and retain records that provide evidence of control measure application (i.e., receipts and/or purchase records). Such person shall describe, in the records, the type of treatment or control measure, extent of coverage, and date applied. Upon verbal or written request by the Control Officer, such person shall provide the records and supporting documentation within as soon as possible but no later than 48 hours, excluding weekends. If the Control Officer is at the site where requested records are kept, such person shall provide the records without delay.
- 503 RECORDS RETENTION:** Copies of the records required by Section 502-Recordkeeping of this rule shall be retained for at least ~~one year~~ two years.

Adopted 06/16/99

Revised 02/16/00

Revised 04/07/04

APPENDIX C
FUGITIVE DUST TEST METHODS

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MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS

APPENDIX C
FUGITIVE DUST TEST METHODS

- 1. RESERVED**
- 2. TEST METHODS FOR STABILIZATION**
 - 2.1 For Unpaved Roads And Unpaved Parking Lots.**
 - 2.1.1 Opacity Test Method.** The purpose of this test method is to estimate the percent opacity of fugitive dust plumes caused by vehicle movement on unpaved roads and unpaved parking lots. This method can only be conducted by an individual who has received certification as a qualified observer. Qualification and testing requirements can be found in Section 3.4 of this appendix.
 - a. Step 1:** Stand at least 16.5 feet from the fugitive dust source in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.
 - b. Step 2:** Record the fugitive dust source location, source type, method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the fugitive dust source. Also, record the time, estimated distance to the fugitive dust source location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position to the fugitive dust source, and color of the plume and type of background on the visible emission observation from both when opacity readings are initiated and completed.
 - c. Step 3:** Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make opacity observations approximately 1 meter above the surface from which the plume is generated. Note that the observation is to be made at only one visual point upon generation of a plume, as opposed to visually

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tracking the entire length of a dust plume as it is created along a surface. Make two observations per vehicle, beginning with the first reading at zero seconds and the second reading at five seconds. The zero-second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.

- d. **Step 4:** Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 5-second period. While it is not required by the test method, EPA recommends that the observer estimate the size of vehicles which generate dust plumes for which readings are taken (e.g. mid-size passenger car or heavy-duty truck) and the approximate speeds the vehicles are traveling when readings are taken.
- e. **Step 5:** Repeat Step 3 (Subsection 2.1.1(c) of this appendix) and Step 4 (Subsection 2.1.1(d) of this appendix) until you have recorded a total of 12 consecutive opacity readings. This will occur once six vehicles have driven on the source in your line of observation for which you are able to take proper readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed 1 hour. Observations immediately preceding and following interrupted observations can be considered consecutive.
- f. **Step 6:** Average the 12 opacity readings together. If the average opacity reading equals 20% or lower, the source is in compliance. ~~with the opacity standard described in Rule 310 of these rules.~~

2.1.2

Silt Content Test Method. The purpose of this test method is to estimate the silt content of the trafficked parts of unpaved roads and unpaved parking lots. The higher the silt content, the more fine dust particles that are released when cars and trucks drive on unpaved roads and unpaved parking lots.

a. **Equipment:**

- (1) A set of sieves with the following openings: 4 millimeters (mm), 2 mm, 1 mm, 0.5 mm and 0.25 mm (or a set of standard/commonly available sieves), a lid, and collector pan.
- (2) A small whisk broom or paintbrush with stiff bristles and dustpan 1 ft. in width (The broom/brush should preferably have one, thin row of bristles no longer than 1.5 inches in length).
- (3) A spatula without holes.
- (4) A small scale with half-ounce increments (e.g. postal/package scale).
- (5) A shallow, lightweight container (e.g. plastic storage container).
- (6) A sturdy cardboard box or other rigid object with a level surface.
- (7) A basic calculator.
- (8) Cloth gloves (optional for handling metal sieves on hot, sunny days).
- (9) Sealable plastic bags (if sending samples to a laboratory).
- (10) A pencil/pen and paper.

- b. **Step 1:** Look for a routinely traveled surface, as evidenced by tire tracks. [Only collect samples from surfaces that are not damp due to precipitation or dew. This statement is not meant to be a standard in itself for dampness where watering is being used as a control measure. It is only intended to ensure that surface testing is done in a representative manner.] Use caution when taking samples to ensure personal safety with respect to passing vehicles. Gently press the edge of a dustpan (1 foot in width) into the surface four times to mark an area that is 1 square foot. Collect a sample of loose surface material using a whiskbroom or brush and slowly sweep the material into the dustpan, minimizing escape of dust particles. Use a spatula to lift heavier elements such as gravel. Only collect dirt/gravel to an approximate depth of 3/8 inch or 1 cm in the 1 square foot area. If you reach a hard, underlying subsurface that is < 3/8 inch in depth, do not continue collecting the sample by digging into the hard surface. In other words, you are only collecting a surface sample of loose material down to 1 cm. In order to confirm that samples are collected to 1 cm in depth, a wooden dowel or other similar narrow object at least one foot in length can be laid horizontally across the survey area while a metric ruler is held perpendicular to the dowel.

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- At this point, you can choose to place the sample collected into a plastic bag or container and take it to an independent laboratory for silt content analysis. A reference to the procedure the laboratory is required to follow is at the end of this section.
- c. **Step 2:** Place a scale on a level surface. Place a lightweight container on the scale. Zero the scale with the weight of the empty container on it. Transfer the entire sample collected in the dustpan to the container, minimizing escape of dust particles. Weigh the sample and record its weight.
- d. **Step 3:** Stack a set of sieves in order according to the size openings specified above, beginning with the largest size opening (4 mm) at the top. Place a collector pan underneath the bottom (0.25 mm) sieve.
- e. **Step 4:** Carefully pour the sample into the sieve stack, minimizing escape of dust particles by slowly brushing material into the stack with a whiskbroom or brush. (On windy days, use the trunk or door of a car as a wind barricade.) Cover the stack with a lid. Lift up the sieve stack and shake it vigorously up, down and sideways for at least 1 minute.
- f. **Step 5:** Remove the lid from the stack and disassemble each sieve separately, beginning with the top sieve. As you remove each sieve, examine it to make sure that all of the material has been sifted to the finest sieve through which it can pass (e.g., material in each sieve (besides the top sieve that captures a range of larger elements) should look the same size). If this is not the case, re-stack the sieves and collector pan, cover the stack with the lid, and shake it again for at least 1 minute. (You only need to reassemble the sieve(s) that contain material, which requires further sifting.)
- g. **Step 6:** After disassembling the sieves and collector pan, slowly sweep the material from the collector pan into the empty container originally used to collect and weigh the entire sample. Take care to minimize escape of dust particles. You do not need to do anything with material captured in the sieves – only the collector pan. Weigh the container with the material from the collector pan and record its weight.
- h. **Step 7:** If the source is an unpaved road, multiply the resulting weight by 0.38. If the source is an unpaved parking lot, multiply the resulting weight by 0.55. The resulting number is the estimated silt loading. Then, divide by the total weight of the sample you recorded earlier in Step 2 (Subsection 2.1.2(c) of this appendix) and multiply by 100 to estimate the percent silt content.
- i. **Step 8:** Select another two routinely traveled portions of the unpaved road or unpaved parking lot and repeat this test method. Once you have calculated the silt loading and percent silt content of the 3 samples collected, average your results together.
- j. **Step 9:** Examine Results. If the average silt loading is less than 0.33 oz/ft², the surface is STABLE. If the average silt loading is greater than or equal to 0.33 oz/ft², then proceed to examine the average percent silt content. If the source is an unpaved road and the average percent silt content is 6% or less, the surface is STABLE. If the source is an unpaved parking lot and the average percent silt content is 8% or less, the surface is STABLE. If your field test results are within 2% of the standard (for example, 4%-8% silt content on an unpaved road), it is recommended that you collect 3 additional samples from the source according to Step 1 (Subsection 2.1.2(b) of this appendix) and take them to an independent laboratory for silt content analysis.
- k. **Independent Laboratory Analysis:** You may choose to collect 3 samples from the source, according to Step 1 (Subsection 2.1.2(b) of this appendix), and send them to an independent laboratory for silt content analysis rather than conduct the sieve field procedure. If so, the test method the laboratory is required to use is: "Procedures For Laboratory Analysis Of Surface/Bulk Dust Loading Samples", (Fifth Edition, Volume I, Appendix C.2.3 "Silt Analysis", 1995), AP-42, Office of Air Quality Planning & Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina.

2.2 Stabilization Limitations For Open Areas And Vacant Lots. The test methods described in Section 2.3 through Section 2.7 of this appendix shall be used to determine whether an open area or a vacant lot has a stabilized surface. Should a disturbed open area or vacant lot contain more than one type of disturbance, soil, vegetation, or other characteristics, which are visibly distinguishable, test each representative surface

- separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, according to the appropriate test methods in Section 2.3 through Section 2.7 of this appendix. ~~and include or eliminate it from the total size assessment of disturbed surface area(s) depending upon test method results.~~
- 2.3 Visible Soil Crust Determination (The Drop Ball Test).**
- 2.1.2 Silt Content Test Method.** The purpose of this test method is to estimate the silt content of the trafficked parts of unpaved roads and unpaved parking lots. The higher the silt content, the more fine dust particles that are released when cars and trucks drive on unpaved roads and unpaved parking lots.
- 2.3.1** ~~Where a visible crust exists, drop~~ Drop a steel ball with a diameter of 15.9 millimeters (0.625 inches) and a mass ranging from 16-17 grams (0.56-0.60 ounce) from a distance of ~~30 centimeters (one foot)~~ one-foot directly above (at a 90° angle perpendicular to) the soil surface. If blowsand is present, clear the blowsand from the surfaces on which ~~the visible crust test method~~ Drop Ball Test is conducted. Blowsand is defined as thin deposits of loose uncombined grains covering less than 50% of a vacant lot or project site ~~which that~~ have not originated from the representative ~~vacant lot~~ surface being tested. If material covers a visible crust, which is not blowsand, apply the test method in Section 2.4-Determination Of Threshold Friction Velocity (TFV) of this appendix to the loose material to determine whether the surface is stabilized.
- 2.3.2** A sufficient crust is defined under the following conditions: once a ball has been dropped according to subsection 2.3.1 of this appendix, the ball does not sink into the surface, so that it is partially or fully surrounded by loose grains and, upon removing the ball, the surface upon which it fell has not been pulverized, so that loose grains are visible.
- 2.3.3** Randomly select each representative disturbed surface for the Drop Ball Test by using a blind “over the shoulder” toss of a throwable object (e.g., a metal weight with survey tape attached). Using the point of fall as the lower left-hand corner, measure a one-foot square area. Drop the ball three times within a survey area that measures 1 foot by 1 foot and that represents a random portion of the overall disturbed conditions of the site the one-foot by one-foot square survey area, using a consistent pattern across the survey area. The survey area shall be considered to have passed the ~~Visible Crust Determination Test~~ Drop Ball Test if at least two out of the three times that the ball was dropped, the results met the criteria in subsection 2.3.2 of this appendix. Select at least two other survey areas that represent a random portion of the overall disturbed conditions of the site, and repeat this procedure. If the results meet the criteria of subsection 2.3.2 of this appendix for all of the survey areas tested, then the site shall be considered to have passed the ~~Visible Crust Determination Test~~ Drop Ball Test and shall be considered sufficiently crusted.
- 2.3.4** At any given site, the existence of a sufficient crust covering one portion of the site may not represent the existence or protectiveness of a crust on another portion of the site. Repeat the ~~visible crust test~~ Drop Ball Test as often as necessary on each ~~random~~ portion of the overall conditions of the site using the random selection method set forth in subsection 2.3.3 of this appendix for an accurate assessment.
- 2.4 Determination Of Threshold Friction Velocity (TFV).** For disturbed surface areas that are not crusted or vegetated, determine threshold friction velocity (TFV) according to the following sieving field procedure (based on a 1952 laboratory procedure published by W. S. Chepil).
- 2.4.1** Obtain and stack a set of sieves with the following openings: 4 millimeters (mm), 2 mm, 1 mm, 0.5 mm, and 0.25 mm or obtain and stack a set of standard/commonly available sieves. Place the sieves in order according to size openings, beginning with the largest size opening at the top. Place a collector pan underneath the bottom (0.25 mm) sieve. Collect a sample of loose surface material from an area at least 30 cm by 30 cm in size to a depth of approximately 1 cm using a brush and dustpan or other similar device. Only collect soil samples from dry surfaces (i.e. when the surface is not damp to the touch). Remove any rocks larger than 1 cm in diameter from the sample. Pour the sample into the top sieve (4 mm opening) and cover the sieve/collector pan unit with a lid. Minimize escape of particles into the air when transferring surface soil into the sieve/collector pan unit. Move the covered sieve/collector pan unit by hand using a broad, circular arm motion in the horizontal plane. Complete twenty circular arm movements, ten clockwise and ten counterclockwise, at a speed just necessary to achieve some relative horizontal motion between the sieves and the particles. Remove the lid from the sieve/collector pan unit and disassemble each sieve separately beginning with the largest sieve. As each sieve is

removed, examine it for loose particles. If loose particles have not been sifted to the finest sieve through which they can pass, reassemble and cover the sieve/collector pan unit and gently rotate it an additional ten times. After disassembling the sieve/collector pan unit, slightly tilt and gently tap each sieve and the collector pan so that material aligns along one side. In doing so, minimize escape of particles into the air. Line up the sieves and collector pan in a row and visibly inspect the relative quantities of catch in order to determine which sieve (or whether the collector pan) contains the greatest volume of material. If a visual determination of relative volumes of catch among sieves is difficult, use a graduated cylinder to measure the volume. Estimate TFV for the sieve catch with the greatest volume using Table 1 of this appendix, which provides a correlation between sieve opening size and TFV.

Table 1. Determination Of Threshold Friction Velocity

Tyler Sieve No.	ASTM 11 Sieve No.	Opening (mm)	TFV (cm/s)
5	5	4	135
9	10	2	100
16	18	1	76
32	35	0.5	58
60	60	0.25	43
Collector Pan	—	—	30

- 2.4.2** Collect at least three soil samples which represent random portions of the overall conditions of the site, repeat the above TFV test method for each sample and average the resulting TFVs together to determine the TFV uncorrected for non-erodible elements. Non-erodible elements are distinct elements, in the random portion of the overall conditions of the site, that are larger than 1 cm in diameter, remain firmly in place during a wind episode, and inhibit soil loss by consuming part of the shear stress of the wind. Non-erodible elements include stones and bulk surface material but do not include flat or standing vegetation. For surfaces with non-erodible elements, determine corrections to the TFV by identifying the fraction of the survey area, as viewed from directly overhead, that is occupied by non-erodible elements using the following procedure. For a more detailed description of this procedure, see Section 2.7 (Test Methods For Stabilization-Rock Test Method) of this appendix. Select a survey area of 1 meter by 1 meter that represents a random portion of the overall conditions of the site. Where many non-erodible elements lie within the survey area, separate the non-erodible elements into groups according to size. For each group, calculate the overhead area for the non-erodible elements according to the following equations:

$$(\text{Average Length}) \times (\text{Average Width}) = \text{Average Dimensions.} \quad \text{Eq. 1}$$

$$(\text{Average Dimensions}) \times (\text{Number Of Elements}) = \text{Overhead Area.} \quad \text{Eq. 2}$$

$$\text{Overhead Area Of Group 1} + \text{Overhead Area Of Group 2 (etc.)} = \text{Total Overhead Area.} \quad \text{Eq. 3}$$

$$\text{Total Overhead Area}/2 = \text{Total Frontal Area.} \quad \text{Eq. 4}$$

$$(\text{Total Frontal Area}/\text{Survey Area}) \times 100 = \text{Percent Cover Of Non-Erodible Elements.} \quad \text{Eq. 5}$$

Note: Ensure consistent units of measurement (e.g., square meters or square inches when calculating percent cover).

Repeat this procedure on an additional two distinct survey areas that represent a random portion of the overall conditions of the site and average the results. Use Table 2 of this appendix to identify the correction factor for the percent cover of non-erodible elements. Multiply the TFV by the corresponding correction factor to calculate the TFV corrected for non-erodible elements.

Table 2. Correction Factors For Threshold Friction Velocity

Percent Cover Of Non-Erodible Elements	Correction Factor
Greater than or equal to 10%	5
Greater than or equal to 5% and less than 10%	3
Less than 5% and greater than or equal to 1%	2
Less than 1%	None

- 2.5 Determination Of Flat Vegetative Cover:** Flat vegetation includes attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not

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subject to movement by wind. Flat vegetation, which is dead but firmly attached, shall be considered equally protective as live vegetation. Stones or other aggregate larger than 1 centimeter in diameter shall be considered protective cover in the course of conducting the line transect test method. Where flat vegetation exists, conduct the following line transect test method.

2.5.1 Line Transect Test Method. Stretch a 100 foot measuring tape across a survey area that represents a random portion of the overall conditions of the site. Firmly anchor both ends of the measuring tape into the surface using a tool such as a screwdriver, with the tape stretched taut and close to the soil surface. If vegetation exists in regular rows, place the tape diagonally (at approximately a 45° angle) away from a parallel or perpendicular position to the vegetated rows. Pinpoint an area the size of a 3/32 inch diameter brazing rod or wooden dowel centered above each 1 foot interval mark along one edge of the tape. Count the number of times that flat vegetation lies directly underneath the pinpointed area at 1 foot intervals. Consistently observe the underlying surface from a 90° angle directly above each pinpoint on one side of the tape. Do not count the underlying surface as vegetated if any portion of the pinpoint extends beyond the edge of the vegetation underneath in any direction. If clumps of vegetation or vegetative debris lie underneath the pinpointed area, count the surface as vegetated, unless bare soil is visible directly below the pinpointed area. When 100 observations have been made, add together the number of times a surface was counted as vegetated. This total represents the percent of flat vegetation cover (e.g., if 35 positive counts were made, then vegetation cover is 35%). If the survey area that represents a random portion of the overall conditions of the site is too small for 100 observations, make as many observations as possible. Then multiply the count of vegetated surface areas by the appropriate conversion factor to obtain percent cover. For example, if vegetation was counted 20 times within a total of 50 observations, divide 20 by 50 and multiply by 100 to obtain a flat vegetation cover of 40%.

2.5.2 Conduct the line transect test method, as described in subsection 2.5.1 of this appendix, an additional two times on areas that represent a random portion of the overall conditions of the site and average results.

2.6 Determination Of Standing Vegetative Cover. Standing vegetation includes vegetation that is attached (rooted) with a predominant vertical orientation. Standing vegetation, which is dead but firmly rooted, shall be considered equally protective as live vegetation. Conduct the following standing vegetation test method to determine if 30% cover or more exists. If the resulting percent cover is less than 30% but equal to or greater than 10%, then conduct the test in Section 2.4 (Determination Of Threshold Friction Velocity (TFV)) of this appendix in order to determine if the site is stabilized, such that the standing vegetation cover is equal to or greater than 10%, where threshold friction velocity, corrected for non-erodible elements, is equal to or greater than 43 cm/second.

2.6.1 For standing vegetation that consists of large, separate vegetative structures (e.g., shrubs and sagebrush), select a survey area that represents a random portion of the overall conditions of the site that is the shape of a square with sides equal to at least 10 times the average height of the vegetative structures. For smaller standing vegetation, select a survey area of three feet by three feet.

2.6.2 Count the number of standing vegetative structures within the survey area. Count vegetation, which grows in clumps as a single unit. Where different types of vegetation exist and/or vegetation of different height and width exists, separate the vegetative structures with similar dimensions into groups. Count the number of vegetative structures in each group within the survey area. Select an individual structure within each group that represents the average height and width of the vegetation in the group. If the structure is dense (e.g., when looking at it vertically from base to top there is little or zero open air space within its perimeter), calculate and record its frontal silhouette area, according to Equation 6 of this appendix. Also, use Equation 6 of this appendix to estimate the average height and width of the vegetation if the survey area is larger than nine square feet. Otherwise, use the procedure in subsection 2.6.3 of this appendix to calculate the frontal silhouette area. Then calculate the percent cover of standing vegetation according to Equations 7, 8, and 9 of this appendix.

(Average Height) x (Average Width) = Frontal Silhouette Area. Eq. 6

(Frontal Silhouette Area Of Individual Vegetative Structure) x (Number Of Vegetation Structures Per Group) = Frontal Silhouette Area Of Group. Eq. 7

Frontal Silhouette Area Of Group 1 + Frontal Silhouette Area Of Group 2 (etc.) = Total Frontal Silhouette Area. Eq. 8

(Total Frontal Silhouette Area/Survey Area) x 100 = Percent Cover Of Standing Vegetation. Eq. 9

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$[(\text{Number Of Circled Gridlines Within The Outlined Area Counted That Are Not Covered By Vegetation} / \text{Total Number Of Gridline Intersections Within The Outlined Area}) \times 100] = \text{Percent Open Space.}$ Eq. 10

$100 - \text{Percent Open Space} = \text{Percent Vegetative Density.}$ Eq. 11

$\text{Percent Vegetative Density} / 100 = \text{Vegetative Density.}$ Eq. 12

$[\text{Max. Height} \times \text{Max. Width}] \times [\text{Vegetative Density} / 0.4] 0.5 = \text{Frontal Silhouette Area.}$ Eq. 13

Note: Ensure consistent units of measurement (e.g., square meters or square inches when calculating percent cover).

- 2.6.3 Vegetative Density Factor.** Cut a single, representative piece of vegetation (or consolidated vegetative structure) to within 1 cm of surface soil. Using a white paper grid or transparent grid over white paper, lay the vegetation flat on top of the grid (but do not apply pressure to flatten the structure). Grid boxes of 1 inch or 1/2 inch squares are sufficient for most vegetation when conducting this procedure. Using a marker or pencil, outline the shape of the vegetation along its outer perimeter, according to Figure B, C, or D of this appendix, as appropriate. (Note: Figure C differs from Figure D primarily in that the width of vegetation in Figure C is narrow at its base and gradually broadens to its tallest height. In Figure D, the width of the vegetation generally becomes narrower from its midpoint to its tallest height.) Remove the vegetation, count and record the total number of gridline intersections within the outlined area, but do not count gridline intersections that connect with the outlined shape. There must be at least 10 gridline intersections within the outlined area and preferably more than 20, otherwise, use smaller grid boxes. Draw small circles (no greater than a 3/32 inch diameter) at each gridline intersection counted within the outlined area. Replace the vegetation on the grid within its outlined shape. From a distance of approximately 2 feet directly above the grid, observe each circled gridline intersection. Count and record the number of circled gridline intersections that are not covered by any piece of the vegetation. To calculate percent vegetative density, use Equations 10 and 11 of this appendix. If percent vegetative density is equal to or greater than 30, use an equation (one of the equations-Equations 16, 17, or 18 of this appendix) that matches the outline used to trace the vegetation (Figure B, C, or D) to calculate its frontal silhouette area. If percent vegetative density is less than 30, use Equations 12 and 13 of this appendix to calculate the frontal silhouette area.

Figure B. Cylinder



$$\text{Frontal Silhouette Area} = \text{Maximum Height} \times \text{Maximum Width} \quad \text{Eq. 16}$$

Figure C. Inverted Cone



$$\text{Frontal Silhouette Area} = \text{Maximum Height} \times 1/2 \text{ Maximum Width} \quad \text{Eq. 17}$$

Figure D. Upper Sphere



$$\text{Frontal Silhouette Area} = (3.14 \times \text{Maximum Height} \times 1/2 \text{ Maximum Width})/2 \quad \text{Eq. 18}$$

- 2.7 Rock Test Method.** The Rock Test Method, which is similar to Section 2.4 (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) of this appendix, examines the wind-resistance effects of rocks and other non-erodible elements on disturbed surfaces. Non-erodible elements are objects larger than 1 centimeter (cm) in diameter that remain firmly in place even on windy days. Typically, non-erodible elements include rocks, stones, glass fragments, and hardpacked clumps of soil lying on or embedded in the surface. Vegetation does not count as a non-erodible element in this method. The purpose of this test method is to estimate the percent cover of non-erodible elements on a given surface to see whether such elements take up enough space to offer protection against windblown dust. For simplification, the following test method refers to all non-erodible elements as “rocks”.
- 2.7.1** Select a 1 meter by 1 meter survey area that represents the general rock distribution on the surface. (A 1 meter by 1 meter area is slightly greater than a 3 foot by 3 foot area.) Mark-off the survey area by tracing a straight, visible line in the dirt along the edge of a measuring tape or by placing short ropes, yard sticks, or other straight objects in a square around the survey area.
 - 2.7.2** Without moving any of the rocks or other elements, examine the survey area. Since rocks $>3/8$ inch (1 cm) in diameter are of interest, measure the diameter of some of the smaller rocks to get a sense for which rocks need to be considered.
 - 2.7.3** Mentally group the rocks $>3/8$ inch (1 cm) diameter lying in the survey area into small, medium, and large size categories. Or, if the rocks are all approximately the same size, simply select a rock of average size and typical shape. Without removing any of the rocks from the ground, count the number of rocks in the survey area in each group and write down the resulting number.
 - 2.7.4** Without removing rocks, select one or two average-size rocks in each group and measure the length and width. Use either metric units or standard units. Using a calculator, multiply the length times the width of the rocks to get the average dimensions of the rocks in each group. Write down the results for each rock group.
 - 2.7.5** For each rock group, multiply the average dimensions (length times width) by the number of rocks counted in the group. Add the results from each rock group to get the total rock area within the survey area.
 - 2.7.6** Divide the total rock area, calculated in subsection 2.7.5 of this appendix, by two (to get frontal area). Divide the resulting number by the size of the survey area (make sure the units of measurement match), and multiply by 100 for percent rock cover. For example, the total rock area is 1,400 square centimeters, divide 1,400 by 2 to get 700. Divide 700 by 10,000 (the survey area is 1 meter by 1 meter, which is 100 centimeters by 100 centimeters or 10,000 centimeters) and multiply by 100. The result is 7% rock cover. If rock measurements are made in inches, convert the survey area from meters to inches (1 inch = 2.54 centimeters).
 - 2.7.7** Select and mark-off two additional survey areas and repeat the procedures described in subsection 2.7.1 through subsection 2.7.6 of this appendix. Make sure the additional survey areas also represent the general rock distribution on the site. Average the percent cover results from all three survey areas to estimate the average percent of rock cover.
 - 2.7.8** If the average rock cover is greater than or equal to 10%, the surface is stable. If the average rock cover is less than 10%, follow the procedures in subsection 2.7.9 of this appendix.
 - 2.7.9** If the average rock cover is less than 10%, the surface may or may not be stable. Follow the procedures in Section 2.4 (Determination Of Threshold Friction Velocity (TFV)) of this rule and use the results from the rock test method as a correction (i.e., multiplication) factor. If the rock cover is at least 1%, such rock cover helps to limit windblown dust. However, depending on the soil’s ability to release fine dust particles into the air, the percent rock cover may or may not be sufficient enough to stabilize the surface. It is also possible that the soil itself has a high enough TFV to be stable without even accounting for rock cover.

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- 2.7.10** After completing the procedures described in subsection 2.7.9 of this appendix, use Table 2 of this appendix to identify the appropriate correction factor to the TFM, depending on the percent rock cover. Multiply the correction factor by the TFM value for a final TFM estimate that is corrected for non-erodible elements.

3. TIME AVERAGED METHODS OF VISUAL OPACITY DETERMINATION OF EMISSIONS FROM DUST GENERATING OPERATIONS

3.1 Applicability. This method is applicable for the determination of opacity of fugitive dust plumes from dust generating operations. ~~A time averaged regulation is any regulation that requires averaging visible emission data to determine the opacity of visible emissions over a specific time period.~~

3.2 Principle. The opacity of emissions from sources of visible emissions is determined visually by an observer qualified according to the procedures of Section 3.4 of this appendix.

3.3 Procedures. An observer qualified, in accordance with Section 3.4 of this appendix, shall use the following procedures for visually determining the opacity of emissions.

~~3.3.1 Procedures For Emissions From Stationary Sources. These procedures are not applicable to this section.~~

3.3.2.3.1 To determine the opacity of non-continuous dust plumes caused by activities including, but not limited to, bulk material loading/unloading, non-conveyorized screening, or trenching with backhoes:

- a. Position.** Stand at least 25 feet from the dust generating operation in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Choose a discrete portion of the operation for observation, such as the unloading point, not the whole operation. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction. If multiple plumes are involved, do not include more than one plume in the line of sight at one time.
- b. Initial Fallout Zone.** The initial fallout zone within the plume must be identified. Record the distance from the equipment or path that is your identified initial fallout zone. The initial fallout zone is that area where the heaviest particles drop out of the entrained fugitive dust plume. Opacity readings should be taken at the maximum point of the entrained fugitive dust plume that is located outside the initial fallout zone.
- c. Field Records.** Note the following on an observational record sheet:
 1. Location of dust generating operation, type of operation, type of equipment in use and activity, and method of control used, if any;
 2. Observer's name, certification data and affiliation, a sketch of the observer's position relative to the dust generating operation, and observer's estimated distance and direction to the location of the dust generating operation;
 3. Time that readings begin, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds); and
 4. Color of the plume and type of background.
- d. Observations.** Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make two observations per discrete activity, beginning with the first reading at zero seconds and the second reading at five seconds. The zero-second observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume but, instead, observe the plume briefly at zero seconds and then again at five seconds.
- e. Recording Observations.** Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 5-second period. Repeat observations until you have recorded at least a total of 12 consecutive opacity readings. The 12 consecutive readings must be taken within the same period of observation but must not exceed one hour. Observations immediately preceding and following interrupted observations can be considered consecutive (e.g., vehicle traveled in front of path, plume doubled-over).
- f. Data Reduction.** Average 12 consecutive opacity readings together. If the average opacity reading equals 20% or lower, the dust generating operation is in compliance. ~~with the opacity standard described in Rule 310 of these rules.~~

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- ~~3.3.3~~**3.3.2** To determine the opacity of continuous dust plumes caused by equipment and activities including but not limited to graders, trenchers, paddlewheels, blades, clearing, leveling, and raking:
- a. **Position.** Stand at least 25 feet from the dust generating operation to provide a clear view of the emissions with the sun oriented in the 140° sector to your back. Following the above requirements, make opacity observations so that the line of vision is approximately perpendicular to the dust plume and wind direction.
 - b. **Dust Plume.** Evaluate the dust plume generation and determine if the observations will be made from a single plume or from multiple related plumes.
 - 1. If a single piece of equipment is observed working, then all measurements should be taken off the resultant plume as long as the equipment remains within the 140° sector to the back.
 - 2. If there are multiple related sources or multiple related points of emissions of dust from a particular activity, or multiple pieces of equipment operating in a confined area, opacity readings should be taken at the densest point within the discrete length of equipment travel path within the 140° sector to the back. Readings can be taken for more than one piece of equipment within the discrete length of travel path within the 140° sector to the back.
 - c. **Initial Fallout Zone.** The initial fallout zone within the plume must be identified. Record the distance from the equipment or path that is your identified initial fallout zone. The initial fallout zone is that area where the heaviest particles drop out of the entrained fugitive dust plume. Opacity readings should be taken at the maximum point of the entrained fugitive dust plume that is located outside the initial fallout zone.
 - d. **Field Records.** Note the following on an observational record sheet:
 - 1. Location of the dust generating operation, type of operation, type of equipment in use and activity, and method of control used, if any;
 - 2. Observer's name, certification data and affiliation, a sketch of the observer's position relative to the dust generating operation, and observer's estimated distance and direction to the location of the dust generating operation; and
 - 3. Time that readings begin, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds).
 - e. **Observations.** Make opacity observations, to the extent possible, using a contrasting background that is perpendicular to the line of vision. Make opacity observations at a point beyond the fallout zone. The observations should be made at the densest point. Observations will be made every 10 seconds until at least 12 readings have been recorded. Do not look continuously at the plume, but observe the plume momentarily at 10-second intervals. If the equipment generating the plume travels outside the field of observation or if the equipment ceases to operate, mark an "x" for the 10-second reading interval. Mark an "x" when plumes are stacked or doubled, either behind or in front, or become parallel to line of sight. Opacity readings identified as "x" shall be considered interrupted readings.
 - f. **Recording Observations.** Record the opacity observations to the nearest 5% on an observational record sheet. Each momentary observation recorded represents the average opacity of emissions for a 10-second period.
 - g. **Data Reduction.** Average 12 consecutive opacity readings together. If the average opacity reading equals 20% or lower, the dust generating operation is in compliance. ~~with the opacity standard described in Rule 310 of these rules.~~

3.4 Qualification and Testing.

- 3.4.1** Certification Requirements. To receive certification as a qualified observer, a candidate must be tested and demonstrate the ability to assign opacity readings in 5% increments to 25 different black plumes and 25 different white plumes, with an error not to exceed 15% opacity on any one reading and an average error not to exceed 7.5% opacity in each category. Candidates shall be tested according to the procedures described in subsection 3.4.2 of this appendix. Any smoke generator used pursuant to subsection 3.4.2 of this appendix shall be equipped with a smoke meter, which meets the requirements of subsection 3.4.3 of this appendix. Certification tests that do not meet the requirements of subsections 3.4.2 and 3.4.3 of this appendix are not valid. The

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certification shall be valid for a period of 6 months, and after each 6-month period the qualification procedures must be repeated by an observer in order to retain certification.

3.4.2 Certification Procedure. The certification test consists of showing the candidate a complete run of 50 plumes, 25 black plumes and 25 white plumes, generated by a smoke generator. Plumes shall be presented in random order within each set of 25 black and 25 white plumes. The candidate assigns an opacity value to each plume and records the observation on a suitable form. At the completion of each run of 50 readings, the score of the candidate is determined. If a candidate fails to qualify, the complete run of 50 readings must be repeated in any retest. The smoke test may be administered as part of a smoke school or training program, and may be preceded by training or familiarization runs of the smoke generator, during which candidates are shown black and white plumes of known opacity.

3.4.3 Smoke Generator Specifications. Any smoke generator used for the purpose of subsection 3.4.2 of this appendix shall be equipped with a smoke meter installed to measure opacity across the diameter of the smoke generator stack. The smoke meter output shall display in-stack opacity, based upon a path length equal to the stack exit diameter on a full 0% to 100% chart recorder scale. The smoke meter optical design and performance shall meet the specifications shown in Table A of this appendix. The smoke meter shall be calibrated as prescribed in subsection 3.4.3(a) of this appendix prior to conducting each smoke reading test. At the completion of each test, the zero and span drift shall be checked, and if the drift exceeds plus or minus 1% opacity, the condition shall be corrected prior to conducting any subsequent test runs. The smoke meter shall be demonstrated, at the time of installation, to meet the specifications listed in Table A of this appendix. This demonstration shall be repeated following any subsequent repair or replacement of the photocell or associated electronic circuitry, including the chart recorder or output meter, or every 6 months, whichever occurs first.

a. Calibration. The smoke meter is calibrated after allowing a minimum of 30 minutes warm-up by alternately producing simulated opacity of 0% and 100%. When stable response at 0% or 100% is noted, the smoke meter is adjusted to produce an output of 0% or 100%, as appropriate. This calibration shall be repeated until stable 0% and 100% readings are produced without adjustment. Simulated 0% and 100% opacity values may be produced by alternately switching the power to the light source on and off while the smoke generator is not producing smoke.

b. Smoke Meter Evaluation. The smoke meter design and performance are to be evaluated as follows:

1. Light Source. Verify, from manufacturer's data and from voltage measurements made at the lamp, as installed, that the lamp is operated within plus or minus 5% of the nominal rated voltage.

2. Spectral Response Of Photocell. Verify from manufacturer's data that the photocell has a photopic response (i.e., the spectral sensitivity of the cell shall closely approximate the standard spectral-luminosity curve for photopic vision which is referenced in (b) of Table A of this appendix).

3. Angle Of View. Check construction geometry to ensure that the total angle of view of the smoke plume, as seen by the photocell, does not exceed 15°.

Calculate the total angle of view as follows:

$$\text{Total Angle Of View} = 2\tan^{-1} d/2L$$

Where:

d = The photocell diameter + the diameter of the limiting aperture; and

L = The distance from the photocell to the limiting aperture.

The limiting aperture is the point in the path between the photocell and the smoke plume where the angle of view is most restricted. In smoke generator smoke meters, this is normally an orifice plate.

4. Angle Of Projection. Check construction geometry to ensure that the total angle of projection of the lamp on the smoke plume does not exceed 15°. Calculate the total angle of projection as follows:

$$\text{Total Angle Of Projection} = 2\tan^{-1} d/2L$$

Where:

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d = The sum of the length of the lamp filament + the diameter of the limiting aperture; and

L = The distance from the lamp to the limiting aperture.

5. **Calibration Error.** Using neutral-density filters of known opacity, check the error between the actual response and the theoretical linear response of the smoke meter. This check is accomplished by first calibrating the smoke meter, according to subsection 3.4.3(a) of this appendix, and then inserting a series of three neutral-density filters of nominal opacity of 20%, 50%, and 75% in the smoke meter path length. Use filters calibrated within plus or minus 2%. Care should be taken when inserting the filters to prevent stray light from affecting the meter. Make a total of five nonconsecutive readings for each filter. The maximum opacity error on any one reading shall be plus or minus 3%.
6. **Zero And Span Drift.** Determine the zero and span drift by calibrating and operating the smoke generator in a normal manner over a 1-hour period. The drift is measured by checking the zero and span at the end of this period.
7. **Response Time.** Determine the response time by producing the series of five simulated 0% and 100% opacity values and observing the time required to reach stable response. Opacity values of 0% and 100% may be simulated by alternately switching the power to the light source off and on while the smoke generator is not operating.

Table A. Smoke Meter Design And Performance Specifications

Parameter	Specification
a. Light Source	Incandescent lamp operated at nominal rated voltage.
b. Spectral response of photocell	Photopic (daylight spectral response of the human eye).
c. Angle of view	15° maximum total angle
d. Angle of projection	15° maximum total angle
e. Calibration error	Plus or minus 3% opacity, maximum.
f. Zero and span drift	Plus or minus 1% opacity, 30 minutes.
g. Response time	Less than or equal to 5 seconds

4. VISUAL OPACITY DETERMINATION OF EMISSIONS FROM LIVESTOCK ACTIVITIES - CORRALS, PENS, AND ARENAS

- 4.1 **Applicability.** This method is applicable for the determination of opacity of fugitive dust plumes from livestock activities-corrals, pens, and arenas.
- 4.2 **Principle.** The opacity of emissions from livestock activities-corrals, pens, and arenas is determined visually by an observer qualified according to Section 3.4 of this appendix.
- 4.3 **Procedures.** An observer qualified, in accordance with Section 3.4 of this appendix, shall use the following procedures for visually determining the opacity of emissions:
 - 4.3.1 **Position.** Stand at a position at least 5 meters from the livestock activities-corrals, pens, and arenas in order to provide a clear view of the emissions with the sun oriented in the 140° sector to the back. Consistent as much as possible with maintaining the above requirements, make opacity observations from a position such that the line of sight is approximately perpendicular to the plume and wind direction. As much as possible, if multiple plumes are involved, do not include more than one plume in the line of sight at one time.
 - 4.3.2 **Field Records.** Record the name of the site, method of control used, if any, observer's name, certification data and affiliation, and a sketch of the observer's position relative to the livestock activity-corrals, pens, and arenas. Also, record the time, estimated distance to the livestock activity-corrals, pens, and arenas location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), observer's position relative to the livestock activity-corrals, pens, and arenas, and color of the plume and type of background on the visible emission observation from when opacity readings are initiated and completed.
 - 4.3.3 **Observations.** Make opacity observations, to the extent possible, using a contrasting background. For storage piles, make opacity observations approximately 1 meter above the surface from which the plume is generated. The initial observation should begin immediately after a plume has been created above the surface involved. Do not look continuously at the plume, but instead observe the plume momentarily at 15-second intervals.

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- 4.3.4** **Recording Observations.** Record the opacity observations to the nearest 5% every 15 seconds on an observational record sheet. If a multiple plume exists at the time of an observation, do not record an opacity reading. Mark an "x" for that reading. If the livestock activity-corral, pens, and arenas ceases operating, mark an "x" for the 15-second interval reading. Readings identified as "x" shall be considered interrupted readings.
- 4.3.5** **Data Reduction.** Within any 60-minute period, count at least three minutes that are greater than 20% opacity. If at least 13 readings are greater than 20% opacity, the livestock activity-corral, pens, and arenas is not in compliance. Readings immediately preceding and following interrupted readings shall be deemed consecutive and in no case shall two sets overlap, resulting in multiple violations.

NOTICE OF PROPOSED RULEMAKING

MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS

RULE 300 - VISIBLE EMISSIONS

[M07-623]

PREAMBLE

- | | |
|---|--|
| 1. <u>Sections affected</u> | <u>Rulemaking action</u> |
| Rule 300 | Amend |
| 2. <u>Statutory authority for the rulemaking:</u> | |
| Authorizing statutes: A.R.S. §§ 49-474, 49-479, and 49-480 | |
| Implementing statute: A.R.S. § 49-112 | |
| 3. <u>List of all previous notices appearing in the register addressing the proposed rule:</u> | |
| Notice of Rulemaking Docket Opening: 13 A.A.R. 3373, October 5, 2007 | |
| 4. <u>The name and address of agency personnel with whom persons may communicate regarding the rulemaking:</u> | |
| Name: | Johanna M. Kuspert or Jo Crumbaker
Maricopa County Air Quality Department |
| Address: | 1001 N. Central Ave., Suite 595
Phoenix, AZ 85004 |
| Telephone: | (602) 506-6710 or (602) 506-6705 |
| Fax: | (602) 506-6179 |
| E-mail: | jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov |

5. An explanation of the rule, including the agency's reasons for initiating the rulemaking:

The Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 300. The MCAQD is proposing these revisions to Rule 300 to implement a control measure and increase compliance with existing rules for the Five Percent Plan for PM₁₀. On June 6, 2007, the Environmental Protection Agency (EPA) finalized its finding that the Phoenix Nonattainment Area did not attain the 24-hour PM₁₀ standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007). Under Section 189(d) of the CAA, serious PM₁₀ nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, "plan revisions which provide for attainment of the PM₁₀ air quality standard and, from the date of such submission until attainment, for an annual reduction in PM₁₀ or PM₁₀ precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area." In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM₁₀ by December 31, 2007.

PM₁₀ Nonattainment Status History:

In accordance with 1990 Clean Air Act Amendments, the Maricopa County nonattainment area was initially classified as "moderate" for PM₁₀ pollution. As a moderate nonattainment area, Maricopa County was required to submit to the EPA a moderate PM₁₀ nonattainment area plan and to show attainment of the PM₁₀ national ambient air quality standards

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(NAAQS) by December 31, 1994. Moderate PM₁₀ nonattainment area plans were submitted to the EPA in 1991 and 1993.

The Maricopa County moderate PM₁₀ nonattainment area, upon the EPA's findings, failed to attain the NAAQS by December 31, 1994. Consequently, on May 10, 1996, the EPA reclassified Maricopa County as a serious PM₁₀ nonattainment area. Maricopa County was then required to submit a serious PM₁₀ nonattainment area plan, which had to include best available control measures (BACM), measures designed to achieve the maximum degree of emissions reduction for PM₁₀ sources. Maricopa County had to show attainment of the PM₁₀ NAAQS by December 21, 2001.

Emission inventories and air quality modeling analysis of existing control measures showed that attainment could not be reached by December 21, 2001. A shortfall of a 16.4% reduction in PM₁₀ concentration was identified. The CAA allows states to request an extension of this attainment date for up to five years, providing the state demonstrates that the plan includes the most stringent measures (MSM) that are included in any state's plan or achieved in practice by any State, and can be feasibly implemented in the area. Consequently, a rigorous planning effort was conducted to develop 77 additional control measures. The serious PM₁₀ nonattainment area plan was submitted to the EPA on July 9, 1999. The EPA approved the revised serious PM₁₀ nonattainment area plan in April 2002, contingent on the completion of three commitments by Maricopa County. The revisions to Rule 310 (adopted April 7, 2004) addressed the commitments.

As a result of litigation on the moderate PM₁₀ nonattainment area plan, the Arizona Department Of Environmental Quality (ADEQ's) prepared and submitted a Plan For Attainment Of The 24-Hour PM₁₀ Standard—Maricopa County PM₁₀ Nonattainment Area in May 1997. EPA partially disapproved the Arizona 24-hour Standard PM₁₀ SIP revision triggering a federal implementation plan (FIP) obligation, which remains in place, related to the area's PM₁₀ moderate area plan. The obligation resulted from EPA disapproved those sections of the SIP addressing unpaved roads, unpaved shoulders, unpaved parking lots, vacant lots and agriculture. EPA found that the SIP did not contain measures to reduce the emissions from or the number of existing sources in these categories and therefore failed to implement reasonably available control measures. Under the court ordered consent decree, EPA finalized a FIP in July 1998 for the Maricopa County PM₁₀ nonattainment area that addresses those four categories of sources.

On July 2, 2002, the Environmental Protection Agency (EPA) found the controls proposed in the, inadequate to ensure the attainment of the PM₁₀ national ambient air quality standards (NAAQS) at the Salt River air quality monitoring sites. The finding of inadequacy included the State Implementation Plan's (SIP's) attainment and reasonable further progress (RFP) demonstrations for the 24-hour PM₁₀ standard at the Salt River monitoring sites and three other microscale sites in the Maricopa County PM₁₀ nonattainment area (Maryvale, Gilbert, and West Chandler).

Although the EPA approved Arizona's 1997 SIP revision and additional required controls proposed by Maricopa County on August 4, 1997, EPA's Aerometric Information Retrieval System (AIRS) continued to show exceedances at the Maricopa County PM₁₀ nonattainment area Salt River site - recording expected exceedances in 1999, 2000, and through three quarters of 2001. Consequently, the EPA required Arizona to submit a SIP revision to identify and implement corrective PM₁₀ control provisions in the Salt River Study Area and for similar significant sources in the Maricopa County PM₁₀ nonattainment area.

Arizona's SIP revision was required to provide for attainment in the Salt River site no later than December 31, 2006, in accordance with CAA §189(b)(1)(A) and 188(e), and was required to include control strategies that meet the best available control measures (BACM) test and the most stringent measures (MSM) test for significant sources and source categories.

The Final Revised PM₁₀ State Implementation Plan For The Salt River Area dated August 2004 contained Arizona's revisions to the State Implementation Plan for the Maricopa County PM₁₀ serious nonattainment area and included the following State Implementation Plan requirements, as described by the EPA in its Federal Register notice of disapproval (67 FR 44369, July 2, 2002):

- A modeling demonstration showing that the level of emissions reductions from application of BACM-MSM for all significant sources of PM₁₀ will result in attainment of the 24-hour NAAQS by December 31, 2006, at the Salt River PM₁₀ monitoring site, in accordance with CAA §189(b)(1)(A) and §188(e).
- Commitments to implement best available control measures (BACM)-most stringent measures (MSM) for sources significantly contributing to exceedances of the 24-hour PM₁₀ standard in the Salt River area as expeditiously as possible (CAA §189(b)(1)(B)) and a commitment that all BACM and MSM control measures adopted and applied to

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sources in the Salt River Study Area will be applied to all similar sources throughout the Maricopa County PM10 serious nonattainment area.

- A demonstration that the plan constitutes Reasonable Further Progress (RFP) up to the attainment deadline - December 31, 2006.
- A demonstration that all the requirements of the federal Clean Air Act Amendments that pertain to serious PM10 nonattainment areas are met - including CAA §110(l), §110(a)(2)(E)(i), and 40 CFR §51.280 and §51.111).

Explanation For Current Rulemaking Proposals:

For the Five Percent Plan for PM10, an analysis was again conducted to identify additional measures to reduce emissions and/or improve compliance with existing requirements. Finally, the MCAQD is also proposing to include a control measure adopted as BACM/MSM in Maricopa County Air Pollution Control Rule 316 in June 2005 for the Salt River SIP in Rule 300. Specifically, the MCAQD is proposing to add a no visible emissions of particulate matter at the property line standard to Rule 300. This proposed revision will make Rule 300 consistent with Rule 310, Rule 310.01, and Rule 316 that also limit particulate matter.

The MCAQD further sought to review rules from other agencies to increase the consistency of compliance with the existing visible emission standard of 20%. The MCAQD reviewed rules from Clark County, Nevada; South Coast Air Quality Management District, California (SCAQMD); and San Joaquin Unified Air Pollution Control District, California (SJUAPCD) to identify difference between County rules and rules from areas that successfully met the December 31, 2006 attainment date. The MCAQD also reviewed EPA's notice finalizing Method 203 (A), (B), and (C) (71 FR 55119, September 21, 2006). In the summary of that notice EPA states, "The intended effect is to provide States with an expanded array of data reduction procedures for determining compliance with SIP opacity regulations." These areas that successfully met the December 31, 2006 attainment date administer rules that utilize a time-exception form of the standard expressed as "... shall not exceed 20% opacity for more than 3 minutes out of any 60 minute period." This form of data reduction for the 20% opacity standard limits the number of excursions over the 20% level of the standard resulting in more consistent compliance with the existing standard.

Section By Section Explanation Of Changes:

- Section 200: To add "See Rule 100-General Provisions And Definitions of these rules for definitions of terms that are used but not specifically defined in this rule."
- Section 201: To delete "Intermittent Source - A source which causes or discharges visible emissions for a duration of less than 6 consecutive minutes."
- Section 301: To delete from heading "Opacity/General". To delete "No person shall discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity."
- Section 301.1: To add "No person shall discharge into the ambient air, from any single source of emissions, any air contaminant, other than uncombined water, in excess of 20% opacity for a period aggregating more than three minutes in any 60-minute period."
- Section 301.2: To add "No person shall cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated."
- Section 501: To delete "except as provided in Section 502 of this rule" and to add "as modified by EPA Reference Method 203B."
- Section 502: To delete "Compliance Determination-Opacity Of Visible Emissions From Intermittent Sources: Opacity of visible emissions from intermittent sources shall be determined by observations of visible emissions conducted in accordance with EPA Reference Method 9, except that at least 12 rather than 24 consecutive readings shall be required at 15-second intervals for the averaging time."

6. Demonstration of compliance with A.R.S. §49-112:

Under ARS §49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the requirements of ARS §49-112:

ARS §49-112 (A)

When authorized by law, a county may adopt a rule, ordinance, or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition;

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2. There is credible evidence that the rule, ordinance or other regulation is either:
 - (a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible.
 - (b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule, ordinance or other regulation is equivalent to federal statutes or regulations.

The MCAQD is proposing to revise Rule 300 in order to address a peculiar local condition: EPA's finding that the Phoenix Nonattainment Area did not attain the 24-hour PM₁₀ standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007). The Phoenix Nonattainment Area is the only nonattainment area designated serious for PM₁₀ in Arizona. Consequently, stronger regulations must be adopted in this area to address a serious health threat. Under Section 189(d) of the CAA, serious PM₁₀ nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, "plan revisions which provide for attainment of the PM₁₀ air quality standard and, from the date of such submission until attainment, for an annual reduction in PM₁₀ or PM₁₀ precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area." In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM₁₀ by December 31, 2007. The Phoenix Nonattainment Area is one of three areas in the entire country for which EPA has issued a finding that Section 189(d) has been triggered. Because of this, the revision complies with A.R.S. §§ 49-112(A)(1) and 49-112(A)(2).

- 7. A reference to any study relevant to the rule that the agency reviewed and either proposes to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:**

Not applicable

- 8. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision:**

Not applicable

- 9. The preliminary summary of the economic, small business, and consumer impact:**

Rule Identification:

This rulemaking amends Rule 300, "Visible Emissions," in Maricopa County Air Pollution Control Regulations. The proposed rule adds a no visible emissions of particulate matter at the property line standard to Rule 300. This proposed revision will make Rule 300 consistent with Rules 310, 310.01 and Rule 316 that also limit particulate matter. A second proposed revision changes the data reduction methodology for the existing 20% and reads "... shall not exceed 20% opacity for more than 3 minutes out of any 60 minute period." This form of data reduction for the 20% opacity standard limits the number of excursions over the 20% level of the standard resulting in more consistent compliance with the existing standard.

Entities Directly Impacted:

Entities directly impacted by this rulemaking include certain permitted sources, pollution control vendors, contractors, consultants, lawyers, the County, private persons and consumers. The County estimates that as few as 20-30 sources might be affected by this rulemaking. Although many industry categories, including woodworking operations, metallurgical operations, scrap metal operations, and cotton gins are potentially subject to Rule 300, most of these sources will be unaffected by this rule as they already comply with either form of data reduction for determining compliance with the standard, are already subject to 20%, or lower, opacity standards, or are regulated by New Source Performance Standards (NSPS), Title 40, Part 60 of the Code of Federal Regulations.

Probable Costs and Benefits:

A. Costs to the state of Arizona:

If Arizona is unable to submit a plan that demonstrates a Five Percent per year reduction and demonstrates attainment at the monitors based on implemented control measures such as this rule, EPA will be required to make a nondiscretionary finding that Arizona has failed to submit an approvable plan. If the County and Arizona fail to correct the identified deficiencies within the timeframe specified in the notice, the sanctions under § 179 of the Clean Air Act (CAA) will be imposed. Sanctions include loss of highway funds and stricter emission offset requirements for major sources. In addition, under § 110(c) of the CAA, EPA would then need to promulgate a Federal Implementation Plan no later than 24 months after the date of publication of the notice.

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B. Potential Costs and Benefits to the Public:

The most obvious benefit arising from promulgation of this rule is reduction in the harmful effects of air pollution, most notably particulates. Air pollution harms lung function, damages lung tissue, and increases respiratory symptoms, such as coughing, shortness of breath, wheezing and asthma attacks, and can impair the body's immune system response to inhaled particles. Results may include restricted activities, and work time and revenues lost due to increased hospital admissions, illness and death. PM associated health risks occur even more frequently in susceptible subpopulations, such as the elderly, children with asthma, and persons with cardiopulmonary disease, and may contribute to up to 65,000 excess deaths in the U.S. annually (STAPPA and ALAPCO, Controlling Particulate Matter Under the Clean Air Act: A Menu of Options, July 1996). Even very low concentrations of particulate matter may increase risk of early death, particularly in elderly populations with preexisting cardiopulmonary diseases (STAPPA and ALAPCO, *supra*). Chronic obstructive pulmonary disease (COPD), a major cause of morbidity and mortality in the U.S., cost the country more than 32 billion dollars in 2002, a figure which does not include costs attributable to asthma (American Lung Assoc., "Trends in Chronic Bronchitis and Emphysema: Morbidity and Mortality," Epidemiology and Statistics Unit, Research and Scientific Affairs, March 2003). Notably, asthma death rates in Arizona equaled or exceeded U.S. rates from 1991-1998. In addition, in 1998, an estimated 316,200 Arizonans suffered breathing discomfort and asthma related stress (Arizona Department of Health Services, "Asthma Control Program," Office of Nutrition and Chronic Disease Prevention Services, October, 2002). Therefore, the County expects the countywide property line standard and change in data reduction methodology to translate into cost-saving benefits to the general public by reducing emissions-related adverse health effects and the concurrent lost revenue and health care costs. In addition to direct health-related effects, a statewide opacity limit of 20% will affect the general quality of life, particularly for those persons living near sources. A lower opacity limit will concurrently increase visibility and enhance the public's enjoyment of Arizona's natural resources.

C. Potential Costs and Benefits to the Regulated Community:

Both the proposed property line standard for particulate matter and the new data reduction methods for the existing opacity standard will require that owners/operators more closely monitor their activities, processes, and controls to ensure proper operation at all times. As described in the explanation in #5 above, a number of western serious PM-10 nonattainment areas administer rules that include both of the proposed revisions. Those areas contain many similar sources that comply with the proposed standards and are in the same business as sources in Maricopa County. Furthermore, an EPA study (Office of Air Quality Planning and Standards, "Opacity Regulations: A Summary of State Regulations and Rulemaking Status", Special Report February 1983) contains information indicating that the state or a local agency in 28 states has adopted a time-exception form of data reduction for their opacity standard.

Although each regulated facility is unique, the costs of compliance associated with the new rule are similar and may include: new capital equipment or modification of existing equipment, adjusting or enhancing operations and maintenance; replacement or modification of processes and designs; and indirect and administrative costs. Compliance might also result, however, in a variety of offsetting financial benefits for the source. They range from lower operation and maintenance costs, as a result of updated and more efficient equipment, to fewer man-hours lost and lower health care costs due to a decrease in pollution-exacerbated illnesses. During the informal workshop process for this rulemaking, the County requested that information on source-specific costs to achieve compliance with these standards, but has not yet received any information. The County is specifically requesting in this preliminary EIS source-specific information on costs to achieve compliance with the new data reduction methodology for determining compliance with the existing 20% opacity standard and no visible emissions at the property line standard.

Small Business Analysis:

Several small business categories were represented during the stakeholder process for this proposed rule. The County has not identified all small businesses that could be affected by this rulemaking, however, those who did participate did not express any reservations about compliance. The County has considered a variety of methods to reduce the impact of this rule on small businesses, including five methods prescribed by A.R.S. § 41-1035: establish less stringent compliance or reporting requirements; establish less stringent schedules or deadlines for compliance or reporting requirements; consolidate or simplify the rulemaking's reporting requirements; establish performance requirements to replace design or operational standards; or exempt them from some or all of the rule requirements. For the reasons stated in item #5 of the preamble, and due to the inherent difficulty in identifying all sources which are small businesses, including the possibility that such status may change from year to year, the County has determined that it is not feasible to apply a separate opacity standard to small businesses. The County does employ an ombudsman in the Business Resource Division, to whom small businesses may address their issues with regard to compliance with the rule.

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Both the proposed property line standard for particulate matter and the new data reduction methods for the existing opacity standard will require that owners/operators more closely monitor their activities, processes, and controls to ensure proper operation at all times.

As described in the explanation in #5 above, a number of western serious PM₁₀ nonattainment areas administer a property line standard. Those areas contain many similar sources that comply with property line standards and are in the same business as sources in Maricopa County. Furthermore, existing Maricopa County sources are already required to employ good housekeeping practices and monitor control equipment. To date no source has provided examples of the activities, processes or controls that may need to be modified to comply with this new requirement. The MCAQD is asking for information or examples that would allow for more than a qualitative analysis of the economic impact of the proposed standard.

As described in the explanation in #5 above, a number of western serious PM₁₀ nonattainment areas administer a time-exception data reduction methodology for their visible opacity limits. Furthermore, an EPA study (Office of Air Quality Planning and Standards, "Opacity Regulations: A Summary of State Regulations and Rulemaking Status", Special Report February 1983) contains information indicating that the state or a local agency in 28 states has adopted a time-exception form of data reduction for their opacity standard. Those areas contain many similar sources that comply with time-exception data reduction methods for visible emission standards and are in the same business as sources in Maricopa County. To date no source has provided examples of the activities, processes or controls that may need to be modified to comply with this new requirement. The MCAQD is asking for information or examples that would allow for more than a qualitative analysis of the economic impact of the proposed standard.

10. Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:

Name: Johanna M. Kuspert or Jo Crumbaker
Maricopa County Air Quality Department

Address: 1001 N. Central Ave., Suite 595
Phoenix, AZ 85004

Telephone: (602) 506-6710 or (602) 506-6705

Fax: (602) 506-6179

E-mail: jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

11. The time, place and nature of the proceedings for the amendment of the rule:

Written comments will be accepted if received between the date of this publication and December 11, 2007, 5:00 p.m. Written comments may be mailed or hand delivered to the Maricopa County Air Quality Department (see item 4 above). Written comments received during the comment period will be considered formal comments to the proposed rules and will be responded to in the Notice of Final Rulemaking.

An oral proceeding will be held on December 10, 2007 at 9:00 a.m. at the Maricopa County Flood Control District, 2801 W. Durango, Operations Building. All comments made at this oral proceeding will be considered formal comments and will be recorded and transcribed. All formal comments will be addressed in the Notice of Final Rulemaking.

12. Any other matters prescribed by the statute that are applicable to the specific agency or to any specific rule or class of rules:

Not applicable

13. Incorporations by reference and their location in the rules:

<u>Incorporation By Reference</u>	<u>Location</u>
EPA Reference Method 9	Rule 300, Section 501
EPA Reference Method 203B	Rule 300, Section 501

14. The full text of the rule follows:

**REGULATION III – CONTROL OF AIR CONTAMINANTS
RULE 300**

VISIBLE EMISSIONS

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Revised 07/13/88

Revised 08/05/94

Revised 02/07/01

**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III – CONTROL OF AIR CONTAMINANTS
RULE 300
VISIBLE EMISSIONS**

SECTION 100 - GENERAL

101 PURPOSE: To limit the emission of air contaminants into the ambient air by establishing standards for visible emissions and opacity.

102 APPLICABILITY: This rule applies to visible emissions from sources for which no source-specific opacity requirements apply. Exceptions to this rule are described in Section 302 of this rule.

SECTION 200 – DEFINITIONS: For the purpose of this rule, the following definitions shall apply. See Rule 100-General Provisions And Definitions of these rules for definitions of terms that are used but not specifically defined in this rule.

~~201~~ ~~**INTERMITTENT SOURCE** – A source which causes or discharges visible emissions for a duration of less than 6 consecutive minutes.~~

~~202~~201 **OPACITY** - A condition of the ambient air, or any part thereof, in which an air contaminant partially or wholly obscures the view of an observer.

~~203~~202 **PERCENT OPACITY** - The degree to which an effluent plume or any other emission of air contaminants obscures the transmission of light expressed as a percentage.

~~204~~203 **SHUTDOWN** - The cessation of operation of any air pollution control equipment and/or process equipment for any purpose, except routine phasing out of process equipment.

~~205~~204 **STARTUP** - The setting into operation of any air pollution control equipment and/or process equipment for any purpose, except routine phasing in of process equipment.

~~206~~205 **UNCOMBINED WATER** - Condensed water containing no more than analytical trace amounts of other chemical elements or compounds.

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SECTION 300 – STANDARDS

- 301 LIMITATIONS – OPACITY/GENERAL:** No person shall discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity.
- 301.1** No person shall discharge into the ambient air, from any single source of emissions, any air contaminant, other than uncombined water, in excess of 20% opacity for a period aggregating more than three minutes in any 60-minute period.
- 301.2** No person shall cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated.
- 302 EXCEPTIONS:**
- 302.1 Charging Electric Arc Furnaces:** When charging or back-charging any electric arc furnace for which construction commenced prior to February 2, 1963, a person may discharge air contaminants, other than uncombined water, in excess of the applicable opacity limit in Section 301 of this rule for no more than an aggregate of 3 minutes in any 45 minute period; however, visible emissions resulting from such discharge of air contaminants shall not exceed 40% opacity.
- 302.2 Emergency Diesel Generators (EDGs) And Equipment:** When emergency diesel generators (EDGs) and equipment must run for safety reasons and/or for safety and operational tests to meet the requirements legally imposed by the Nuclear Regulatory Commission, a person may discharge air contaminants, other than uncombined water, in excess of the applicable opacity limit in Section 301 of this rule. Any discharge of air contaminants, other than uncombined water, in excess of the opacity limit in Section 301 of this rule should not contribute to a violation of the national ambient air quality standard.
- 302.3 Firing Of Ordnance At Test Facilities:** Visible emissions exceeding the opacity standards for short periods of time resulting from firing test rounds in enclosed bunkers at ordnance test facilities which do not exceed 6 minutes in length shall not constitute a violation of Section 301 of this rule.
- 302.4 Opacity Training:** Equipment or processes used to train individuals in opacity observations shall be exempt from opacity standards during the preparation for and/or during the actual training session(s).

SECTION 400 – ADMINISTRATIVE REQUIREMENTS (NOT APPLICABLE)

SECTION 500 – MONITORING AND RECORDS

- 501 COMPLIANCE DETERMINATION - OPACITY:** Opacity shall be determined by observations of visible emissions conducted in accordance with EPA Reference Method 9 as modified by EPA Reference Method 203B. ~~except as provided in Section 502 of this rule.~~
- 502 COMPLIANCE DETERMINATION - OPACITY OF VISIBLE EMISSIONS FROM INTERMITTENT SOURCES:** Opacity of visible emissions from intermittent sources shall be determined by observations of visible emissions conducted in accordance with EPA Reference Method 9, except that at least 12 rather than 24 consecutive readings shall be required at 15-second intervals for the averaging time.

NOTICE OF PROPOSED RULEMAKING

MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS

RULE 314 – OPEN OUTDOOR FIRES AND INDOOR FIREPLACES AT
COMMERCIAL AND INSTITUTIONAL ESTABLISHMENTS

[M07-621]

PREAMBLE

- | | |
|---|--|
| <u>1. Sections affected</u>
Rule 314 | <u>Rulemaking action</u>
Amend |
| <u>2. Statutory authority for the rulemaking:</u>
Authorizing Statutes: A.R.S. §§ 49-112(A), 9-479, 49-501, 11-251.63, and 11-871
Implementing Statute: A.R.S. §§ 9-479 and 49-501 | |
| <u>3. List of all previous notices appearing in the register addressing the proposed rule:</u>
Notice of Rulemaking Docket Opening: 13 A.A.R. 2600, July 20, 2007 | |
| <u>4. Name and address of department personnel with whom persons may communicate regarding the rulemaking:</u>
Name: Patricia P. Nelson or Jo Crumbaker
Maricopa County Air Quality Department | |

County Notices Pursuant to A.R.S. 49-112

Address: 1001 N. Central Ave., Suite 595
Phoenix, AZ 85004

Telephone: (602) 506-6709 or (602) 506-6705

Fax: (602) 506-6179

E-mail: pnelson@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

5. Explanation of the rule, including the department's reasons for initiating the rule:

Maricopa County is proposing to amend Rule 314 in response to the passage of Senate Bill 1552 by the Arizona Legislature in June of 2007. The County is proposing this new rule due to the statutory requirements listed in the recently enacted Senate Bill 1552 and also in relation to commitments made in the Five Percent Plan for PM₁₀. Since the area did not attain the PM₁₀ standard by December 31, 2006, the area must submit to the Environmental Protection Agency (EPA) a Five Percent Plan for PM₁₀ by December 31, 2007. The Five Percent Plan for PM₁₀ must demonstrate 5% reductions per year in emissions from the date of submission to the EPA. As part of this rulemaking authority, the County may add, delete, or modify additional rules and ordinances as necessary.

The proposed, amended rule will prohibit certain types of open outdoor burning in Maricopa County except the types of open outdoor burning that are listed in Sections 302,303,304, 305 and Appendix to Rule 314. The proposed, amended Rule 314 will also limit certain types of open burning during Restricted - Burn Periods in Maricopa County and will further prohibit some types of open burning during the period from May 1 to September 30 of each year during the ozone season. The proposed, amended rule will also prohibit all indoor burning using fireplaces in commercial, non- residential establishments, such as hotels and restaurants, during Restricted- Burn Periods with the exception of those that use gaseous fuels. This will reduce the emissions of air contaminants such as particulate matter, nitrogen oxides (NOx) and volatile organic carbon (VOC), by limiting certain types of open burning in non-residential sources during these times of the year when the ozone is expected to exceed standards.

Maricopa County has also proposed to update the requirements and specifications for air curtain destructors in the proposed rule and in the Appendix to Rule 314. The use of air curtain destructors will be prohibited in the proposed rule if there is no firebox in the air curtain destructor wherein the burning takes place. Open pits above or underground will be prohibited in the proposed rule. Open outdoor fires for the burning of indigenous scrub cleared for the purpose of construction operations will not be allowed. This would also apply to air curtain destructors used for this purpose.

The federal New Source Performance Standard 40 CFR, Part 60, Subpart EEEE and the federal emission guideline, Subpart FFFF, were promulgated on December 16, 2005 by the EPA. Subpart EEEE mandates Title V permits for certain types of air curtain destructors, both existing and new. The proposed Rule 314 will also mandate that sources obtain Title V permits if using an air curtain destructor and approval of a submitted Burn Plan by the Control Officer prior to burning. Arizona Department of Environmental Quality (ADEQ) is the state agency that will be issuing the Title V permits for air curtain destructors and it will be a General Permit.

There are also some proposed amendments listed in the Appendix to Rule 314. These proposed amendments are considered good management practices for outdoor burns in air curtain destructors and are concerned with the proper placement and functioning of these units.

The proposed amendments will also add four new definitions - Area A, firebox, prohibited fuels, and wood burning chimineas.

Section by Section Explanation of Changes for the Amended Rule 314:

Title: This proposed amendment will change the title of the rule to reflect the addition of indoor fireplaces at commercial and institutional establishments.

Section 101: This proposed amendment will add text to include the indoor fireplaces at commercial and institutional establishments.

Section 201: This proposed amendment will add text to redefine air curtain destructors.

Section 202: This proposed amendment will add a definition for "Area A" and thus the remaining definitions will be renumbered.

County Notices Pursuant to A.R.S. 49-112

- Section 207: This proposed amendment will add the definition of "firebox" to the rule and thus the remaining definitions will be renumbered.
- Section 209: This proposed amendment will delete the word "construction" from the text.
- Section 211: This proposed amendment will add the definition of "prohibited materials" to the text and thus the remaining definitions will be renumbered.
- Section 214: This proposed amendment will add the definition of "wood burning chimineas" to the rule.
- Section 301: This proposed amendment will add a reference to the Appendix of Rule 314.
- Section 302: This proposed amendment will change the title of the Section to "Open Outdoor Fires Required to Obtain a Burn Permit " and will clarify and streamline the language that was originally in Section 302 regarding outdoor fires that require a permit. It also will propose to remove the text regarding Title V, non- Title V, and General Permits because it will be placed in another Subsection 402.5.
- Subsection 302.1: This proposed amendment will amend the text to reflect a new category of fires that are prohibited during Restricted - Burn Periods in Maricopa County but allowed during May 1 to September 30 of each year in Area A.
- Subsection 302.1 (c): This proposed amendment will add "fire fighting training areas and structures" to this section and change the section reference to subsection 303.2b.
- Subsection 302.2: This proposed amendment will amend the text to reflect a new category of fires that are prohibited during Restricted- Burn Periods in Maricopa County and also prohibited from May 1 to September 30 Each Year in Area A.
- Section 303: This proposed amendment will change the text from "EXEMPTIONS" to "OPEN OUTDOOR FIRES THAT DO NOT NEED A BURN PERMIT."
- Subsection 303.1: This proposed amendment will amend the text to reflect the category of fires that are allowed at any time in Maricopa County or Area A.
- Subsection 303.2: This proposed amendment will amend the text to reflect the type of fires that are prohibited during Restricted-Burn Periods in Maricopa County.
- Subsection 303.3: This proposed amendment will amend the text to reflect the type of fires that are prohibited during Restricted- Burn Periods in Maricopa County and also prohibited from May 1 to September 30 of each year in Area A.
- Section 304: This proposed amendment will add text that addresses open outdoor fires in an air curtain destructor.
- Section 305: This proposed amendment will add text that addresses condition that apply to the type of fires allowed per Sections 302, 303 and 304.
- Section 306: This proposed amendment will prohibit indoor burning in fireplaces in commercial establishments with the exception of those using natural gas.
- Section 400: This proposed amendment will add text to expand the title of "Administrative Requirements" for Burn Permits and Burn Plans.
- Section 401: This proposed amendment will add text to include air curtain destructors' burn plans.
- Subsection 402.4: This proposed amendment will delete the text stating that the County cannot issue permits for its own burning activities. It will also add text stating that permission for setting any fire given by a public officer in the performance of official duty shall be given in writing.
- Subsection 402.5: This proposed amendment will add the text regarding Title V, Non-Title V, and General permits which is proposed to be removed from Section 302 and also adds text that addresses burn plans.
- Section 406: This proposed amendment will add text describing the Burn Plan application and the length of time given to the Control Officer to approve the plan.
- Subsection 406.1: This proposed amendment will add text stating that a separate, site-specific Burn Plan application is required for each burn site location.
- Subsection 406.2: This proposed amendment will add text that lists the minimum requirements that should be contained in a Burn Plan application.
- Subsection 406.3: This proposed amendment will add text that states that an on-site inspection shall be conducted before the Control Officer shall approve the Burn Plan application.
- Subsection 406.4: This proposed amendment will add text that states that the issuance of an approved Burn Plan shall not relieve the permittee from any other requirements that the local fire department may impose on the source.
- Subsection 406.5: This proposed amendment will add text that states that the Control Officer may impose additional conditions in order to comply with Federal and State laws as well as Rule 314.
- Subsection 406.6: This proposed amendment will add text that states that the Control Officer shall deny a Burn Plan application if the material or operations of the source do not meet the criteria described in this rule.

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- Subsection 501.1: These proposed amendments will delete the Subsection references that were previously listed in this Subsection and will replace them with the Subsection references that are now relevant or pertinent to the specific reference.
- Section 503: These proposed amendments will add Section 503- Program Review. Text in this Section will include text from original Subsections 502.3 and 502.4, which will be deleted.
- Subsection 503.1: This proposed amendment will place the text from the adopted Rule 314, subsection 502.3 into a new subsection, 503.1.
- Subsection 503.2: This proposed amendment will place the text from the adopted Rule 314, subsection 502.4 into a new subsection, 503.2.

Appendix to Rule 314:

- Title of Appendix: This proposed text deletes the term "Burn Pit" and replaces it with the term "Firebox."
- Section A: This proposed amendment will delete the word "burn pit requirements" and replace it with the word "firebox" and also will state that the air curtain destructor rather than the pit must be approved by the Control Officer.
- Section A 1.: This proposed amendment will delete the term "burn pit" and will substitute the word "firebox."
- Section A 2.: This proposed amendment will delete the provision stating that the width of the pit must not exceed 8 feet and will replace it with text that states that the firebox shall be lined with refractory materials.
- Section A 3.: This proposed amendment will delete the text stating that the depth of the pit shall be a minimum of 15 feet and will replace it with text stating that the depth of the firebox shall be of such a distance as to be below the curtain of air created by the air curtain destructor.
- Section A 4.: This proposed amendment will delete the text stating that the maximum erosion width must not exceed 12 feet and will replace it with text stating that the width of the firebox shall not extend beyond the length of the nozzle action.
- Section A 5.: This proposed amendment will remove text stating that the sides of the pit shall have four stable vertical sides.
- Section A 6.: This proposed amendment will add text stating that if the location of an air curtain destructor shall be moved, the location will first be inspected by the Control Officer.
- Section A 7.: This proposed amendment will add text stating that the distance from the air curtain destructor to the opposite wall of the firebox shall not exceed 10 feet.
- Section B 1.: This proposed amendment will add text stating that a firebox and not a pit or trench shall be used to conduct burning in an air curtain destructor.
- Section B 2.: This proposed amendment will delete the word "pit" and will replace it with the term "firebox."
- Section B 3.: This proposed amendment will add text stating the minimum amount of feet (1,000 ft.) allowed between two air curtain destructors.
- Section B 4.: This proposed amendment will add text stating that there shall be at least 500 feet from any air curtain destructor to any residence or building structure.
- Section B 5.: This proposed amendment will add text stating that there shall be at least 500 feet from any air curtain destructor to any pipeline or fuel storage area.
- Section B 6.: This proposed amendment will add text stating that there shall be at least 250 feet from any air curtain destructor to any power lines.
- Section B 7.: This proposed amendment will add text stating that material to be burned or stockpiled shall be kept at least 75 feet from the air curtain destructor while a burn is taking place.
- Section C 1.: This proposed amendment will state that the proper blower speed shall be maintained according to manufacturer's specifications and will delete the text stating that the speed must be maintained to meet emission standards.
- Section C 2.: This proposed amendment will delete the word "pit" and will replace it with the term "firebox."
- Section D: This proposed amendment will delete the word "pit" and will replace it with the term "firebox."
- Section D 1.: This proposed amendment will delete the word "pit" and will replace it with the term "firebox."
- Section D 2.: This proposed amendment will delete the word "pit" and will replace it with the term "firebox."
- Section D 3.: This proposed amendment will delete the word "pit" and will replace it with the term "firebox."
- Section E: This proposed amendment will delete the word "pit" and will replace it with the term "firebox."
- Section F: These proposed amendments will amend the times allowed for open outdoor burning by changing the possible time of starting an open outdoor fire to 10 a.m. from 8 a.m. and also by removing the clause

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stating that rubber and plastic are prohibited from being burning. There will now be a definition for inappropriate materials in Section 211 which includes rubber and plastic.

6. Demonstration of compliance with A.R.S. § 49-112:

Under A.R.S. § 49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the requirements of A.R.S. §49-112.

A.R.S. § 49-112(A)

When authorized by law, a county may adopt a rule, ordinance, or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition;
2. There is credible evidence that the rule, ordinance or other regulation is either:
 - (a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible
 - (b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule, ordinance or other regulation is equivalent to federal statutes or regulations.

The Phoenix Metropolitan Area is the only area of the state currently designated as a nonattainment area for the 8-hour ozone National Ambient Air Quality Standards (NAAQS). The area was also reclassified to attainment and is implementing a maintenance plan approved by EPA to ensure that the area continues to attain the carbon monoxide (CO) standard. Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 314 in order to address EPA's finding that the Phoenix Nonattainment Area did not attain the 24-hour PM₁₀ standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006 (72 FR 31183, June 6, 2007). The Phoenix Nonattainment Area is the only nonattainment area designated serious for PM₁₀ in Arizona. Consequently stronger regulations must be adopted in this area to address a serious health threat. Under Section 189(d) of the CAA, serious PM₁₀ nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, "plan revisions which provide for attainment of the PM₁₀ air quality standard and, from the date of such submission until attainment, for an annual reduction in PM₁₀ or PM₁₀ precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area." In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM₁₀ by December 31, 2007. The Phoenix Nonattainment Area is one of three areas in the entire country for which EPA has issued a finding that Section 189(d) has been triggered. Because of these factors, the revision complies with A.R.S. §§ 49-112 (A)(1) and (A)(2). Several of the proposed revisions to Rule 314 are required by A.R.S. § 49-501 that was recently enacted in Senate Bill 1552. Therefore a demonstration of compliance with A.R.S. § 49-112 as required by the County's general grant of rulemaking and ordinance authority in A.R.S. § 49-479 does not apply to these rule provisions.

7. Reference to any study relevant to the rule that the department reviewed and either proposes to rely on in its evaluation of or justification for the rule or proposes not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

No studies were used.

8. Showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:

Not applicable

9. Preliminary summary of the economic, small business, and consumer impact:

Rule Identification

Proposed amended Rule 314 will prohibit certain types of open outdoor burning in Maricopa County and will also prohibit burning in indoor fireplaces that use fuels other than natural gas at commercial and institutional establishments during Restricted- Burn days and/or during the ozone season of May 1 to September 30 in Area A (Area A is defined in the proposed rule in Section 202). Section 300 of the proposed rule states that any open outdoor fires will be prohibited unless they are listed in Sections 303, 304, 305, and Appendix 314 of proposed Rule 314. The use of air curtain destructors will not be allowed in the County for the purpose of clearing out vegetative shrub and debris for pre-

County Notices Pursuant to A.R.S. 49-112

construction clearance operations. The proposed amendments to Rule 314 will now restrict the times of the year and the hours of the day when some of these open burning activities will be allowed to be conducted, whether the activity requires a Burn Permit or does not. In addition, all sources allowed to conduct open outdoor burning will now be required to call the Control Officer and local fire department prior to initiating the burn in order to either obtain permission to burn for each day of the planned burning event (those that require a Burn Permit); or to find out if a Restricted- Burn Day has been declared (those that do not require a Burn permit). Some of the open outdoor fire activities that need to obtain a Burn Permit shall also be restricted from burning during the ozone season from May 1 to September 30 each year in Area A: namely the destruction of tumbleweeds for the prevention of fire hazards and the burning of tumbleweeds prior to conducting agricultural operations.

Entities Affected

Open outdoor burning may be done by many entities for a variety of purposes such as dangerous material disposal, fire fighting training, site preparation, weed control, and disease and pest prevention. Open outdoor burning has been conducted by a broad range of entities including members of the agricultural community, cities and counties, state and federal agents, law enforcement departments, private industries that burn debris in vegetative debris in air curtain destructors, private industries that conduct fire extinguisher training, fire fighters, companies who test explosive-containing products for commercial, military and law enforcement uses, cattlemen and ranchers who brand animals, military service, and veteran institutions that properly dispose of American flags, and groups who conduct cinematic and theatrical functions using fireworks. The amendments to the proposed rule will also affect the agencies that issue Burn Permits such as MCAQD and ADEQ and private industries such as those who either manufacture, market, or use chimineas and air curtain destructors. Also included in the proposed rule are amendments which would limit burning in indoor fireplaces except if using natural gas for a fuel in hotels, restaurants, and clubs for ambience and warmth during Restricted-Burn Periods.

Potential Impact

There have been a total of 18 Restricted-Burn days in the year 2006 here in Maricopa County. There were also 18 Restricted-Burn days in 2005 and only 1 Restricted-Burn day in 2004 in Maricopa County. Therefore there is little or no financial impact on a source by moving a scheduled burn to another day when the air quality is forecasted to be good rather than burn on a Restricted - Burn day when the dispersion is not as great. The amount of total burning will most likely remain the same.

The proposed restrictions on the times of year to conduct open outdoor burning are not expected to have any effect on revenues or payroll expenditures of the sources that are subject to the sections of the proposed Rule 314 refraining from open outdoor burning since the restrictions are to prohibit this activity during a certain time of the year only. The amendments to the rule also involve mandating a phone call to the Control Officer before performing certain types of outdoor burning either to ask permission for a burn or to check to see if a Restricted- Burn Day has in fact been declared. This phone call is not expected to impact payroll expenditures of the sources involved either.

The proposed restrictions on chimineas are not expected to impact revenues of chiminea manufacturers or marketers in any measurable amount. Weather conditions in the Phoenix area are exceedingly hot and sunny from May to September. Temperatures range from the high 90's to the mid 100's during this time in the day when chimineas are proposed to be prohibited. Therefore residents and businesses are not apt to use their chimineas in the evening or night from May to September when temperatures are still in the 80's and 90's.

Chimineas would be prohibited from burning on Restricted- Burn days, but the number of Restricted - Burn days has been averaging 7 days each year in the years of 2005 and 2006. Seven days of restricted burning should not be a financial burden for the chiminea industry in the area.

Hotels and restaurants that wish to burn any fuel other than natural gas in fireplaces will also be subject to a prohibition during Restricted- Burn Periods and this will also involve a call to the County to determine whether there is a Restricted-Burn Day. This phone call should not be a financial burden on the sources affected by this rulemaking. Thus there should be minimal time and costs associated with the act of calling the County or checking their web site. If a Restricted- Burn day has been declared, then the hotel or restaurant will not be able to use their indoor fireplace on these days unless it is natural gas. This should not cause any impact on their revenues or financial burden on them.

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The requirement to obtain a General Title V permit for an air curtain destructor under the new general permit issued by the ADEQ will cost a source \$840 and the cost of obtaining a Burn Plan approved by the Control Officer will cost \$350. There were only a total of 7 air curtain destructor burn permits issued last year in Maricopa County. With the proposed amendments regarding banning air curtain destructors for the purposes of construction preparation, there will even be less air curtain destructor permits issued in Maricopa County. Air curtain destructors are only one method used for land clearance; there are other alternatives for land clearance.

By Maricopa County banning air curtain destructors, the sources that use these means for land clearance for construction purposes will have to use other methods for land clearance.

The other proposed amendments that are listed in the Appendix of the Rule 314 dealing with air curtain destructors should not bring any financial burden to the owners or operators of these units that are using them for agricultural operations because the amendments deal with location requirements (e.g. how close to a residence or power line that an air curtain destructor shall be set up, how deep the firebox shall be, and that the air curtain destructor shall be operated according to manufacturer's specifications). These are considered good operating techniques for managing a fire using an air curtain destructor and many of them are already in practice.

County Costs

Enforcement of the proposed amendments to Rule 314 by MCAQD may result in a slight increase in costs to Maricopa County. There will not be an increase in the cost for the number of phone calls to the Department to determine if a Restricted - Burn Day has been declared because the phone line is an automated one, but there will be an increase in time for approval of Burn Plans that would be submitted by an owner or operator of an air curtain destructor for agricultural purposes. There were a total of 7 air curtain destructor permits issued in 2005 and a total of 19 air curtain destructor permits issued in 2006 in Maricopa County. Therefore it is plausible that approximately 19 Burn Plans will be approved next year due to the prohibition of the use of air curtain destructors for construction purposes. It is estimated that it will take from 2 - 4 hours to approve one Burn Plan; therefore the costs to the County would be approximately 38 hours per year or one week of manpower. It is not expected to require the hiring of any more County personnel to perform this task.

State Costs

Maricopa County is tasked with the compliance and enforcement of Rule 314 in the County. ADEQ is the agency that will issue the General Title V Permits for Air Curtain Destructors. The number of manpower hours to process these permits by ADEQ has not been estimated yet. The information will appear in the Notice of Final Rulemaking.

No significant impact on state revenues from the amended proposed rule shall be expected since the majority of the amendments to the rule prohibit certain types of burning during Restricted - Burn periods and the ozone season.

Health Impacts

The 2005 PM₁₀ emission inventory estimates that open burning produces 11.5 tons/year of PM₁₀. This source category represents 0.013% of the inventory for the nonattainment area. This estimate, however, only accounts for emissions from permitted burns. No estimate of the emissions produced by unpermitted burns is included in the inventory. There is no data in the County on the frequency of occurrence of unpermitted open burns. A review of the complaint files at the County is roughly double the number of permitted burns. Assuming the same material is burned in unpermitted burns and the complaints quantify the extent of the activity, the level of PM₁₀ emitted is roughly 23 tons/year.

This proposed rulemaking will reduce the amount of certain priority pollutants such as particulate matter, carbon monoxide and volatile organic carbon (VOC) during Restricted- Burn Periods and from the ozone season from May 1 to September 30 of each year. On average, approximately 200 pounds of particulate matter emission per acre are generated from prescribed wildland burning. The proposed amendment to shift burning to days that are not restricted burn days will shift emissions from days of poor dispersion to days that have good capacity to safely disperse smoke and resultant emissions. This will result in health benefits to the public. Health benefits accrue to the general public whenever enforcement of environmental laws takes place. Adverse health effects from air pollution result in number of economic and social consequences, including:

1. Medical costs: These include personal out-of-pocket expenses of the affected individual (or family), plus costs paid by insurance or Medicare, for example.

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2. **Work loss:** This includes lost personal income, plus lost productivity whether the individual is compensated for the time or not. For example, some individuals may perceive no income loss because they receive sick pay, but sick pay is a cost of business and reflects lost productivity.
3. **Increased costs for chores and caregiving:** These include special caregiving and services that are not reflected in medical costs. These costs may occur because some health effects reduce the affected individual's ability to undertake some or all normal chores, and she or he may require caregiving.
4. **Other social and economic costs:** These include restrictions on or reduced enjoyment of leisure activities, discomfort or inconvenience, pain and suffering, anxiety about the future, and concern and inconvenience to family members.

Improvement in air quality will generate cost-saving benefits by avoiding adverse-health effects, such as emergency room visits, hospital admissions, acute pediatric bronchitis, chronic adult bronchitis, acute respiratory symptom days, and even premature death. Potential benefits arising from a reduction in PM and other pollutants emitted into the atmosphere can be inferred from data associated with the reduction of any airborne PM.

Some of the health effects of human exposure to PM can be quantified while others cannot. Quantified adverse-health effects include: mortality, bronchitis (chronic and acute), new asthma cases, hospital admissions (respiratory and cardiovascular), emergency room visits for asthma, lower and upper respiratory illness, shortness of breath, respiratory symptoms, minor restricted activity days, days of work loss, moderate or worse asthma status of asthmatics. Unquantifiable adverse-health effects include: neonatal mortality, changes in pulmonary function, chronic respiratory diseases (other than chronic bronchitis), morphological changes, altered host defense mechanisms, cancer, and non-asthma respiratory emergency room visits (U.S. EPA, "The Benefits and Costs of the Clean Air Act 1990 to 2010," Chapter 5, "Human Health Effects of Criteria Pollutants," Table 5-1, Report to Congress, November 1999).

Epidemiological evidence shows that particulates have negative health impacts in a variety of ways, including: increased mortality and morbidity; more frequent hospital admissions, emergency room and clinician visits; increased need and demand for medication; and lost time from work and school. There is also increasing evidence that ambient air pollution can precipitate acute cardiac episodes, such as angina pectoris, cardiac arrhythmia, and myocardial infarction, although the majority of PM-related deaths are attributed to cardiovascular disease (The EPA's Particulate Matter (PM) Health Effects Research Center Program, prepared by PM Centers Program staff, January 2002).

New evidence also links exposure to ambient PM concentrations to airway inflammation that in turn produces systemic effects, such as acute phase response with increased blood viscosity and coagulability, as well as increased risk of myocardial infarction in patients with coronary artery disease. Chronic effects of repeated airway inflammation may also cause airway remodeling, leading to irreversible lung disease. Individuals with asthma and chronic obstructive pulmonary disease may be at even higher risk from repeated exposure to particulates (The EPA's Particulate Matter (PM) Health Effects Research Center Program).

The Health Effects Institute confirmed the existence of a link between particulate matter and human disease and death (premature mortality). The data revealed that long-term average mortality rates, even after accounting for the effects of other health effects, were 17-26% higher in cities with higher levels of airborne PM (Health Effects of Particulate Air Pollution: What Does The Science Say? Hearing before the Committee on Science, House of Representatives, 107th Congress of the U.S., second session, May 8, 2002). Data further reveal that every 10-microgram increase in fine particulates per cubic meter produces a 6% increase in the risk of death by cardiopulmonary disease, and an 8% increase for lung cancer. Even very low concentrations of PM can increase the risk of early death, particularly in elderly populations with preexisting cardiopulmonary disease (STAPPA and ALAPCO, Controlling Particulate Matter Under the Clean Air Act: A Menu of Options, July 1996).

In 2002 alone, chronic obstructive pulmonary disease cost the U.S. more than \$32 million, a sum not including costs attributable to asthma (American Lung Assoc., Trends in Chronic Bronchitis and Emphysema: Morbidity and Mortality, Epidemiology and Statistics Unit, Research and Scientific Affairs, March 2003).

In Arizona, deaths attributable to asthma have equaled or exceeded national rates from 1991-1998. In 1998, some 316,200 Arizonans suffered breathing discomfort or asthma related stress (Arizona Department of Health Services, Asthma Control Program, Office of Nutrition and Chronic Disease Prevention Services, October, 2002).

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Maricopa County expects that a reduction in PM potentially will create commensurate cost-saving benefits to the general public by contributing towards reducing these emissions-related health problems. The proposed amendments to Rule 314 will help improve the general quality of life for citizens of Arizona, particularly those residing near sources that will have reduced PM emissions and other air pollutants associated with open outdoor burning during Restricted- Burn Periods and during the ozone season from May 1 to September 30 each year.

The total emissions reductions from the ban on open burning during the ozone season is expected to be 8 tons per year of VOC, 4 tons per year of NOx and 6 tons per year of particulate matter. The total emissions reduction on outdoor burning during Restricted- Burn Periods is expected to be 12 tons per year of particulate matter.

Health benefits can be expressed as avoided cases of PM related-health effects and assigned a dollar value. EPA used an average estimate of value for each adverse-health effect of criteria pollutants. Table 6-1 contains valuation estimates from the literature reported in dollars per case of chronic bronchitis avoided. For example, the Table shows a value of \$385,800 (2003 dollars) per case of chronic bronchitis avoided. An individual's health status and age prior to exposure impacts his/her susceptibility. At risk persons include those who have suffered a stroke or have cardiovascular disease. Some age cohorts are more susceptible to air pollution than others (i.e. children and the elderly).

Table 6 -1

Adverse-Health Effect	Per Case Valuation (1990 dollars)	Per Case Valuation (2003 dollars)
Mortality	\$4,800,000	\$7,122,600
Chronic bronchitis	\$260,000	\$385,800
Hospital admissions for respiratory conditions	\$6,900	\$10,240
Hospital admissions for cardiovascular conditions	\$9,500	\$14,100
Emergency room visits for asthma	\$194	\$288
Acute Bronchitis	\$45	\$67
Asthma attack	\$32	\$48
Moderate or worse asthma day	\$32	\$48
Acute respiratory symptom	\$18	\$27
Upper respiratory symptom	\$19	\$28
Lower respiratory symptom	\$12	\$18
Shortness of breath, chest tightness, or wheeze	\$5	\$7
Work loss day	\$83	\$123
Mild restricted activity day	\$38	\$56

Mortality in Table 6 actually refers to statistical deaths, or inferred deaths due to premature mortality. The values have been adjusted for inflation. According to the Consumer Price Index for all urban consumers (U.S. Department of Labor, Bureau of Labor Statistics), the purchasing power of the dollar has declined about 48 percent between 1990 and 2003.

A small decline in the risk for premature death will have a certain monetary value for individuals, and as such, they will be willing to pay a certain amount to avoid premature death. For instance, if PM emissions are reduced so that the mortality risk on the exposed population is decreased by one in one-hundred thousand, then among 100,000 persons, one less person will be expected to die prematurely. If the average willingness-to-pay (WTP) per person for such a risk reduction were \$75.00, the implied value of the statistical premature death avoided would be 7.5 million dollars.

This preliminary economic impact statement (EIS) was developed to estimate the impact of the proposed rule. This impact statement, comprised of potential costs and benefits, represents an estimate. Maricopa County solicits input from stakeholders that are small businesses and organizations on the administrative and other costs required for compliance with the proposed rulemaking and any other information relevant to the economic, small business and consumer impact statement.

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10. Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:

Name: Patricia P. Nelson or Jo Crumbaker
Maricopa County Air Quality Department

Address: 1001 N. Central Ave, Suite 595
Phoenix, AZ 85004

Telephone: (602) 506-6709 or (602) 506-6705

Fax: (602) 506-6179

E-mail: pnelson@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

11. Time, place, and nature of the proceedings for the making, amendment, or repeal of the rule, or if no proceeding is scheduled, where, when, and how persons may request an oral proceeding on the proposed rule:

Oral Proceeding Date: Monday, December 10, 2007 at 1:30 p.m.

Location: Maricopa County Flood Control
2801 W. Durango St.
Operations Building
Phoenix, AZ 85009

Nature: Public hearing with the opportunity for formal comments on the record regarding the proposed rules. Call (602) 506-6443 for special accommodations under the Americans with Disabilities Act.

12. Other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:

Not applicable

13. Incorporations by reference and their location in the rules:

None

14. The full text of the rule follows:

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 314

OPEN OUTDOOR FIRES AND INDOOR FIREPLACES AT COMMERCIAL AND INSTITUTIONAL ESTABLISHMENTS

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APPENDIX TO RULE 314

AIR CURTAIN DESTRUCTOR AND ~~BURN PIT~~ FIREBOX PROCEDURES

Revised 07/13/88
Revised 12/19/01
Revised 04/20/05

**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III - CONTROL OF AIR CONTAMINANTS**

**RULE 314
OPEN OUTDOOR FIRES AND INDOOR FIREPLACES AT COMMERCIAL AND INSTITUTIONAL ESTABLISHMENTS**

SECTION 100 – GENERAL

- 101 PURPOSE:** To limit the emissions of air contaminants produced from open burning and from indoor fireplaces at commercial and institutional establishments.
- 102 APPLICABILITY:** Rule 314 is applicable to any open outdoor fire and burning in indoor fireplaces at commercial and institutional establishments that is conducted within Maricopa County.

SECTION 200 - DEFINITIONS: See Rule 100 (General Provisions And Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply:

- 201 AIR CURTAIN DESTRUCTOR** - A device designed to form a curtain of air over a pit firebox in which combustion burning occurs that aids in more complete combustion through increases in turbulence and combustion time. Above ground air curtain destructors are the only type of air curtain destructor that are allowed in Maricopa County.
- 202 AREA A** - As defined in Arizona Revised Statutes (A.R.S.) § 49-541(1), the area in Maricopa County delineated as follows:

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Township 8 North, Range 2 East and Range 3 East
Township 7 North, Range 2 West through Range 5 East
Township 6 North, Range 5 West through Range 6 East
Township 5 North, Range 5 West through Range 7 East
Township 4 North, Range 5 West through Range 8 East
Township 3 North, Range 5 West through Range 8 East
Township 2 North, Range 5 West through Range 8 East
Township 1 North, Range 5 West through Range 7 East
Township 1 South, Range 5 West through Range 7 East
Township 2 South, Range 5 West through Range 7 East
Township 3 South, Range 5 West through Range 1 East
Township 4 South, Range 5 West through Range 1 East

- ~~202~~**203** **DANGEROUS MATERIAL** - Any substance or combination of substances that is capable of causing bodily harm or property loss unless neutralized, consumed, or otherwise disposed of in a controlled and safe manner.
- ~~203~~**204** **DITCHBANK** – A lateral area not to exceed two and one half feet on either side of a ditch.
- ~~204~~**205** **EMISSION REDUCTION TECHNIQUES (ERTS)** – Methods for controlling emissions from outdoor fires to minimize the amount of emissions output per unit of area burned. Types of ERTS include minimizing the material to be burned, preventing fire from spreading by lining the area and applying fire retardant foam or water, allowing the material to dry before burning, extinguishing the smoldering burns, burning in piles, and burning in the opposite direction of the wind.
- ~~205~~**206** **FENCE ROW**-- A lateral area not to exceed two and one half feet on either side of the centerline of a fence.
- ~~207~~ **FIREBOX** - The chamber or compartment inside of an air curtain destructor wherein materials are burned.
- ~~206~~**208** **FLUE** - Any duct or passage for air or combustion gases, such as a stack or chimney.
- ~~207~~**209** **OPEN OUTDOOR FIRE OR OPEN BURNING** - Any combustion of any type of material outdoors, where the products of combustion are not directed through a flue. Open outdoor fires include agricultural, residential and prescribed ~~and construction~~ burning. Purposes for fires can include prevention of a fire hazard, instruction in the methods of fighting fires, watershed rehabilitation, disease and pest prevention.
- ~~208~~**210** **ORCHARD HEATERS** – A device which helps prevent frost damage to fruit trees by heating. An orchard heater consists of a pipeline heater system operated from a central control from which fuel is distributed by a piping system from a centrally located tank.
- ~~211~~ **PROHIBITED MATERIALS** - Nonpaper garbage from the processing, storage, service or consumption of food; books, magazines, fiberboard, packaging, rags, fabrics, office records, sensitive or classified wastes; chemically treated or soaked wood; lead-painted wood; linoleum flooring, and composite counter tops; tires; animal wastes and carcasses, coal, liquid or gelatinous hydrocarbons tar, explosives or ammunition; oleanders, leaves, grass clippings, green plants, refuse; asphalt shingles or asphalt; tar paper; plastic and rubber products, including bottles for household chemicals; plastic grocery and retail bags; waste petroleum products, such as waste crankcase oil, transmission oil, and oil filters; transformer oils; asbestos; batteries; anti-freeze; aerosol spray cans; electrical wire insulation; thermal insulation; polyester products; hazardous waste products such as paints, pesticides, cleaners and solvents, stains and varnishes, and other flammable liquids; plastic pesticide bags and containers; and hazardous material containers including those that contained lead, cadmium, mercury and arsenic compounds.
- ~~209~~**212** **PUBLIC OFFICER** – Any elected or appointed officer of a public agency established by charter, ordinance, resolution, state constitution or statute, but excluding members of the legislature.
- ~~210~~**213** **RESTRICTED-BURN PERIOD** – A condition declared by the Control Officer whenever meteorological conditions are conducive to an accumulation of carbon monoxide (CO), ozone, and/or particulate matter in exceedance of the standards or when air quality reaches other limits established by the Control Officer or when there is increased fire danger.
- ~~214~~ **WOOD BURNING CHIMINEAS** – Chimineas are burning devices made from clay, aluminum, and steel and are used for warmth and aesthetics outside in yards and patios. Chimineas are designed to burn solid fuels.

SECTION 300 - STANDARDS

- ~~301~~ **PROHIBITION - OPEN OUTDOOR FIRES:** It shall be unlawful for any person to ignite, cause or permit to be ignited, allow, maintain any open outdoor fire within the limits of Maricopa County, except as provided in Sections 302, ~~this rule and in Section 303, 304, 305 and in the Appendix of this rule.~~
- ~~302~~ **BURN PERMIT:** ~~A person shall first obtain a Burn Permit from the Control Officer before igniting, causing or permitting to be ignited, allowing, or maintaining the open outdoor fires described in Sections 302.1 through 302.8 of this rule. Before a person to whom a Burn Permit has been issued begins burning, such person shall call for~~

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permission to burn, the fire department having jurisdiction and the Control Officer, who must base his decision to approve or deny permission to burn on National Weather Service forecasts or other meteorological analyses. If a person has obtained a Title V Permit, a Non Title V Permit, or a General Permit under Regulation II (Permits And Fees) of these rules that includes condition(s) regarding open outdoor fires, then such person shall not be required to obtain a Burn Permit from the Control Officer. See Section 402 of this rule for requirements regarding Burn Permit applications and see Section 403 of this rule for requirements regarding Burn Permit conditions.

302

OPEN OUTDOOR FIRES REQUIRED TO OBTAIN A BURN PERMIT: The types of fires described in Subsections 302.1 and 302.2 of this rule require a burn permit that is obtained from the Control Officer prior to initiating the burn. Even after the Control Officer issues the burn permit, the owner or operator shall call the fire department and the Control Officer to obtain permission to burn for each day. The Control Officer shall base his decision to approve or deny permission to burn on National Weather Service forecasts or other meteorological analyses that are indicative of a Restricted-Burn Period. See Section 402 of this rule for additional requirements regarding burn permits.

302.1 Fires Prohibited During Restricted- Burn Periods in Maricopa County, But Allowed From May 1 thru September 30 Each Year in Area A:

302.1 a. Open outdoor fires that are declared necessary by the County Agricultural Agent, when such fires have been determined as essential for the purposes of disease and/or pest prevention and certified by actual investigations by the County Agricultural Agent.

302.2 b. Open outdoor fires for the control of weeds for the prevention of fire hazards, when such fires are declared necessary by a public officer in the performance of his official duties.

302.3 c. Open outdoor fires for fire fighting training and fire fighting training areas and structures. See Section 303.10 303.2 b of this rule for an exemption to this requirement.

302.4 d. Open outdoor fires for the burning of agricultural ditchbanks and fence rows where other reasonable mechanical, chemical, or other methods of removal are not available.

a-(1) A high temperature mechanical burner must be used to burn ditchbanks, canal laterals, and/or fence rows.

b-(2) Burning ditchbanks and/or fence rows is not allowed during a restricted-burn period from October 1 through February 29, unless such fires are required in the performance of an official duty of any public office, or such fires are necessary to-thwart or prevent a hazard that cannot be properly managed by any other means, or are necessary for the protection of public health.

e-(3) An on-site inspection must be conducted to verify that only vegetative materials will be burned.

d-(4) After an initial on-site inspection has been completed, a Burn Permit may be issued for the same location(s) without having to conduct additional initial on-site inspections. However, periodic, unscheduled, on-site inspections may be conducted on days when such burning has been authorized by the Burn Permit.

302.7 e. Open outdoor fires declared necessary by the Federal government or any of its departments, agencies, or agents, or the state or any of its agencies, departments, or subdivisions for the purpose of watershed rehabilitation or control through vegetative manipulation.

302.2 **Fires Prohibited During Restricted-Burn Periods in Maricopa County and Also Prohibited From May 1 to September 30 Each Year in Area A:**

302.5 a. Open outdoor fires for the destruction of tumbleweeds for the prevention of fire hazards in cases where other reasonable methods are not available.

a-(1) Tumbleweeds must be cut, piled, and dried before burning.

b-(2) A high temperature mechanical burner may be used to burn un-dried tumbleweeds in situations where it is not feasible to allow natural drying.

e-(3) A high temperature mechanical burner must be used to burn tumbleweeds growing along canal laterals and fence rows.

b. Open outdoor fires for the burning of indigenous scrub vegetation cleared for the purpose of ~~construction or~~ agricultural operations in non-urban areas of low population where other reasonable methods are not available.

a(1) The Control Officer shall issue such Burn Permit only once per geographical location.

e.(2) An on-site inspection must be conducted to determine removal of all other materials (e.g. wood, rubber, tires, dirt and metal) before the issuance of the Burn Permit.

303

EXEMPTIONS: ~~A person shall not be required to obtain a Burn Permit in order to conduct open outdoor fires described in Sections 303.1 through 303.11 of this rule.~~

303

OPEN OUTDOOR FIRES NOT REQUIRED TO OBTAIN A BURN PERMIT: The owner or operator conducting any type of fire listed in Section 303 of this rule does not need to obtain a burn permit. However, the

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owner or operator may be required to contact the Control Officer for permission to burn prior to igniting the fire when specified below in Subsections 303.1 through 303.3.

~~303.1 Domestic cooking for immediate human consumption.~~

~~303.2 Warmth for human beings.~~

~~303.3 Recreational purposes, where the combustible material is clean, dry wood, or charcoal.~~

~~303.4 Branding animals.~~

~~303.10 Fire fighting training areas and training structures.~~

- ~~a. This exemption applies only if the sole source of flame is a burner fueled by either liquefied petroleum gas or natural gas, with a British Thermal Unit (BTU) input per hour rating of less than 2,000,000 BTUs.~~
- ~~b. Before a person conducts an open outdoor fire for fire fighting training areas and training structures, such person shall call the Control Officer to determine if a restricted burn period has been declared and obtain permission to burn.~~

303.1 Fires Allowed At Any Time of The Year in Maricopa County or Area A:

- a. Cooking for immediate human consumption.
- b. Orchard heaters for frost protection in farming or nursery operations.
- c. Proper disposal of flags under 4 United States Code 8.
- d. The display of fireworks for recreational purposes or pyrotechnics for musical or cinematic/theatrical functions.

303.2 Fires Prohibited During Restricted- Burn Periods in Maricopa County: The owner or operator of any type of fire listed in Subsection 303.2 of this rule shall first call the County Air Quality Updates Hotline to hear the recorded message or check local government web sites to determine whether a Restricted-Burn Period has been declared each day. If that is the case, then open outdoor burning is prohibited.

- a. Fire extinguisher training. This exemption from needing a burn permit applies only when the training is limited to using a small amount of flammable liquid and a small container (i.e. a wastepaper basket or a flat pan).
- b. Fire fighting training, training areas and training structures are exempt from needing a permit if the sole source of flame is a burner fueled by either liquefied petroleum gas or natural gas, with a British Thermal Unit (BTU) input per hour rating of less than 2,000,000 BTUs.
- c. Testing potentially explosive-containing, flammable, or combustible products (e.g., automotive airbags, rocket motors, gas generators, and vehicular assemblies) in accordance with Department of Transportation (DOT) or Department of Defense guidelines. This exemption from needing a burn permit refers to testing of hazard classification, packaging performance, propagation, and/or mass fire, but only when testing area is controlled, is relatively small, and when testing is not considered to be nor is associated with the disposal of dangerous material.
- d. Testing potentially explosive-containing products for commercial, military, and law enforcement uses. This exemption from needing a burn permit applies only when the testing is controlled, relatively small and not considered to be nor is associated with the disposal of dangerous material.
- e. Disposal of dangerous material must be conducted in compliance with the Arizona Department of Environmental Quality's (ADEQ's) regulations.

303.3 Fires Prohibited During Restricted- Burn Periods in Maricopa County and Also Prohibited From May 1 Through September 30 Each Year in Area A: The owner or operator of any type of fire listed in Subsection 303.3 of this rule shall first call the County Air Quality Updates Hotline to hear the recorded message or check local government web sites to determine whether a Restricted-Burn Period has been declared. If that is the case, then open outdoor burning is prohibited.

- a. Warmth for human beings.
- b. Recreational purposes.
- c. Wood Burning Chimineas and outdoor pits.
- d. Branding of Animals.

304 OPEN OUTDOOR FIRES IN AN AIR CURTAIN DESTRUCTOR: Prior to shall obtain a Title V permit from ADEQ and a site specific Burn Plan approved by the Control Officer. See the Appendix to Rule 314 for further requirements for the use of air curtain destructors. See Section 406 of this rule for Burn Plan Applications and Conditions.

305 ADDITIONAL REQUIREMENTS FOR OPEN OUTDOOR FIRES ALLOWED PER SECTIONS 302, 303, and 304:

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- 305.1** Prohibited materials cannot be burned in open outdoor fires except as provided in Subsections 303.2 a, 303.2b, 303.2c, 303.2 d and 303.2e.
- 305.2** Open outdoor fires cannot be conducted before the hours of 10 a.m. and after 5 p.m. from October 1 to March 31 and before the hour of 6 a.m. and after 6 p.m. from April 1 to September 30 except as provided in Subsections 302.1(c), 303.2(b), and 303.3.
- 305.3** Open outdoor fires cannot be conducted during any weekends or holidays except as provided in subsections 302.1(c), 303.1, 303.2(b), and 303.3.
- 305.4** Fire extinguishing equipment shall be available at all times during open outdoor fires.
- 305.5** An attendant shall be present at all times during open outdoor fires for the duration of the burn.
- 305.6** Open outdoor fires shall never be initiated with items that cause the production of black smoke.
- 305.7** An air curtain destructor must be used for the burning of certain vegetative materials greater than 6 inches in diameter and an on-site inspection must be conducted before burning.

306 **PROHIBITION - BURNING IN INDOOR FIREPLACES:** Burning in indoor fireplaces that use any fuels other than gaseous fuels, including gas logs, at commercial and institutional establishments is prohibited during Restricted-Burn Periods in Maricopa County. The owner or operator of a commercial or institutional fireplace shall first call the County Air Quality Updates Hotline to hear the recorded message or check local government web sites to determine whether a Restricted-Burn Period has been declared. If that is the case, then burning is prohibited except if using gaseous fuels.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS FOR BURN PERMITS AND BURN PLANS:

- 401** **FEES REQUIRED:** A fee shall be charged for a Burn Permit or the approval of each site specific Air Curtain Destructor Burn Plan as set forth in Rule 280 (Fees) of these rules.
- 402** **BURN PERMIT APPLICATION:** A person shall file with the Control Officer, on a form prescribed by the Control Officer, a Burn Permit application and the complete application fee as described in Rule 280 (Fees) of these rules. The Control Officer shall act on a Burn Permit application and shall notify the applicant within 14 calendar days of the filing of the completed application.
- 402.1** A separate Burn Permit application is required for each burn site location not contiguous to the location on the original Burn Permit application.
- 402.2** The Control Officer shall conduct an on-site inspection before issuing the Burn Permit.
- 402.3** The issuance of a Burn Permit does not relieve the permittee from any of the requirements of a fire department having jurisdiction, including but not limited to having the Burn Permit validated by such fire department.
- 402.4** Maricopa County shall not issue permits for its own burning activities. Authority for issuance of permits to the County shall be retained by Arizona Department of Environmental Quality. Permission given by a Public Officer for setting any fire given by a public officer in the performance of official duty under Sections 300 through 304 of this rule shall be given in writing and a copy of the written permission shall be transmitted immediately to the Control Officer. The setting of any such fire shall be conducted in a manner and at such times as approved by the Control Officer, unless doing so would defeat the purpose of this exemption.
- 402.5** If a person has obtained a Title V Permit, a Non-Title V Permit, or a General Permit under Regulation II (Permits And Fees) of these rules that includes condition(s) regarding open outdoor fires, then such person shall not be required to obtain a separate Burn Permit from the Control Officer. An owner or operator of an air curtain destructor that has obtained a Title V permit from the ADEQ shall submit a burn plan for each burn site location to the Control Officer as described in the Appendix to Rule 314.
- 403** **BURN PERMIT CONDITIONS:** The Control Officer may impose any permit conditions that are necessary to ensure compliance with Federal laws, State laws, or these rules. Burn Permit condition(s) may include, but are not limited to, burning hours, notification of intent to burn, and Burn Permit posting.
- 404** **BURN PERMIT DENIAL:** The Control Officer shall deny a Burn Permit application if the material or operations do not meet the criteria described in this rule.
- 405** **BURN PERMIT TERMS:** A Burn Permit shall be issued for the following terms:
- | | |
|-------------------------|-------------------------------|
| Disease/Pest Prevention | 30 days from date of issuance |
| Fire Hazard | 30 days from date of issuance |
| Tumbleweeds | 30 days from date of issuance |
| Ditchbank/Fence Row | 1 year from date of issuance |

County Notices Pursuant to A.R.S. 49-112

Fire Fighting Training/Structures 1 year from date of issuance

406

BURN PLAN APPLICATION AND CONDITIONS: In order to use an air curtain destructor, a person shall file with the Control Officer, on a form prescribed by the Control Officer, a Burn Plan application and the complete application fee as described in Rule 280 (Fees) of these rules. The Control Officer shall act on a Burn Plan application and shall notify the applicant within 14 calendar days of the filing of the completed application.

- 1.** A separate, site-specific Burn Plan application is required for each burn site location not contiguous to the location.
- 2.** A Burn Plan Application shall be site-specific and shall list the following, at a minimum:
 - a.** Notification of intent to burn;
 - b.** The anticipated dates and hours of the burn;
 - c.** The type and quantity of fuel that will be used;
 - d.** The type of material burned;
 - e.** The legal location, to the nearest township, range and section or latitude and longitude, to the nearest degree minute, street address, or parcel number;
 - f.** The Burn Plan posting; and
 - g.** The listing of the air curtain destructor's requirements as outlined in Section A of the Appendix to this rule.
- 3.** The Control Officer shall conduct an on-site inspection before approving the Burn Plan Application.
- 4.** The issuance of a Burn Plan does not relieve the permittee from any of the requirements of a fire department having jurisdiction, including but not limited to having the Burn Plan validated by such fire department.
- 5.** The Control Officer may impose any conditions that are necessary to ensure compliance with Federal laws, State laws, or these rules.
- 6.** The Control Officer shall deny a Burn Plan application if the material or operations do not meet the criteria described in this rule.

500

MONITORING AND RECORDS

501

RECORDKEEPING AND REPORTING:

- 501.1** The following information shall be provided to the Control Officer for each time that open burning occurs for persons and operations subject to Sections 302, 304 and Subsections 303.2 (c), (d) and (e) ~~Subsections 305.2 (b), 305.2 (c), and 305.2 (d), 303.6, 303.8, 303.9, and 303.1.0~~ This information shall be provided on a daily basis either by writing, fax, or electronically and shall include:
- a.** The date of the burn; and
 - b.** The type and quantity of fuel burned for each date open outdoor burning occurs; and
 - c.** The fire type such as a pile or windrow for each date that open outdoor burning occurs; and
 - d.** The legal location, to the nearest township, range and section, or latitude and longitude, to the nearest degree minute, street address, or parcel number.

502

RECORDS RETENTION:

- 502.1** Maricopa County shall retain permits issued for open burning available for inspection by the ADEQ for five years.
- 502.2** For each permit issued, Maricopa County shall have a means of contacting the person authorized by the permit to set an open fire, if an order to extinguish open burning is issued by either the County or ADEQ. Therefore the permit application must contain the name of a contact person and shall list a means of contacting that person.
- 502.3** ~~Maricopa County shall hold or attend an annual public meeting for interested parties to review operations of the open outdoor fire program and discuss emission reduction techniques.~~
- 502.4** ~~Maricopa County shall annually submit to ADEQ a record of daily burn activity by May 15 of each calendar year.~~

503

PROGRAM REVIEW

- 503.1** Maricopa County shall hold or attend a public meeting for interested parties to review operations of the open outdoor fire program and discuss emission reduction techniques.
- 503.2** Maricopa County shall annually submit to the ADEQ a record of daily burn activity by May 15 of each calendar year.

APPENDIX TO RULE 314

AIR CURTAIN DESTRUCTOR AND ~~BURN PIT~~ FIREBOX PROCEDURES

County Notices Pursuant to A.R.S. 49-112

A. ~~Burn Pit Requirements~~ Air Curtain Destructor Requirements:

The following must be complied with prior to approval of a ~~pit~~ an air curtain destructor by the Control Officer ~~for burning purposes:~~

1. ~~The pit must not exceed the length of the plenum.~~ The length of the firebox must not exceed the length of the plenum.
2. ~~The width of the pit must not exceed 8 feet.~~ The firebox shall be lined with refractory materials.
3. ~~The depth of the pit must be a minimum of 15 feet.~~ The depth of the firebox shall be of such a distance to allow all burning material to be below the curtain of air created by the air curtain destructor.
4. ~~The maximum erosion width must not exceed 12 feet nor must the pit result in excessive emissions at any time due to erosion, regardless of the width.~~ The width of the firebox shall not extend beyond the length of the nozzle action.
5. The ~~pit~~ firebox must have 4 stable, vertical sides. ~~such as, but not limited to, mineral, soil, metal curtain, and masonry.~~
6. When air curtain destructor locations are changed, an inspection of the newly located air curtain destructor must be made by the Control Officer prior to burning.
7. ~~When pit locations are changed, an inspection of the newly located pit must be made by the field inspector prior to burning. An air curtain destructor shall never be located at one site for more than 6 consecutive months and shall follow the burn permit terms of Section 402 of this rule. A total of 6 burn permits maximum will be issued by the County for any one area or place.~~
7. The distance from the air curtain destructor to the opposite wall of the firebox shall not exceed 10 feet.

B. Equipment Set-Up:

1. An owner or operator of an air curtain destructor shall use a firebox and not a pit or trench to conduct open outdoor burning.
2. The equipment must be positioned so as to allow the blower's airflow to strike at a downward angle no less than 24 inches below the opposite rim of the ~~pit~~ firebox.
3. There shall be at least 1,000 feet between any two air curtain destructors.
4. An air curtain destructor shall be located at least 500 feet from any residence or building structure.
5. An air curtain destructor shall be located at least 500 feet from any pipeline or fuel storage area.
6. ~~An~~ air curtain destructor shall be located at least 250 feet from any power lines.
7. Material that is not being worked or is being stockpiled to be burned at a later date by using an air curtain destructor shall be kept at least 75 feet from the air curtain destructor while the burn is taking place.

C. Operation of Blower:

1. The proper blower speed must be maintained ~~so as to meet emissions standards~~ according to manufacturer's specifications.
2. The blower must be operating when and as long as any material in the ~~pit~~ firebox is burning.

D. Loading of the ~~Pit~~ Firebox:

1. When loading (feeding) the ~~pit~~ firebox, the material must not extend above the air curtain (blower airflow).
2. The loading of materials into the ~~pit~~ firebox must be discontinued at a minimum of 2 hours prior to the end of the designated burning hours. The blower must continue to operate until the end of the burning hours or until combustion is completed.
3. Adequate measures must be taken to assure that no emissions emanate from materials left in the ~~pit~~ firebox (i.e., overnight) (i.e. when combustion is completed). All materials left in the ~~pit~~ firebox must be extinguished with water or covered over with a minimum of 1 foot of mineral soil.

E. ~~Pit~~ Firebox Clean-Out:

All materials removed from the ~~pit~~ firebox must be completely extinguished and all reasonable precautions taken to control emissions.

F. ~~Permit Approval Requirements:~~ Burning Hours for Air Curtain Destructors:

The following burning hours apply:

April - September 6 am – 6 pm

October - March 8~~10~~ am – 5 pm

While complying with the above schedule, the permittee must also obtain permission from the Control Officer on each day of burning. Burning using an air curtain destructor is not authorized on weekends nor on holidays. ~~Rubber and plastic type material must not be used as ignition fuel.~~ Prohibited materials shall never be burned in an air curtain destructor.

[M07-620]

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December 31, 2007. The Five Percent Plan for PM₁₀ must demonstrate 5% reductions per year in emissions from the date of submission to the EPA.

Section By Section Explanation Of Changes:

Section 227:	To add "For the purpose of this definition, haul/access roads are not in permanent areas of a facility."
Section 235:	To add "raw material storage and distribution."
Section 236:	To change "ASTM Method C136-01" to "ASTM Method C136-06" and to delete "of the Environmental Protection Agency (EPA)."
New Section 240:	To add "Permanent Areas Of A Facility - Areas that remain in-place for 180 days or more in 12 consecutive months. Permanent areas of a facility include the following areas: entrances, exits, parking areas, office areas, warehouse areas, maintenance areas (not including maintenance areas that are in the quarry or pit), concrete plant areas, asphaltic plant areas, and roads leading to and from such areas."
Re-Numbered Section 261:	To delete "Unpaved internal roads are private unpaved roads within the facility's property boundary."
Section 301:	To change heading "Nonmetallic Mineral Processing Plants-Process Emission Limitations And Controls" to "Crushing And Screening-Process Emission Limitations And Controls." To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
Section 301.1:	To delete "of a nonmetallic mineral processing plant."
Section 301.1(a):	To delete "Such stack emissions shall be vented to a properly sized fabric filter baghouse." Section 301.1(a) is addressed in Section 301.2(d). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
Section 301.1(d):	To delete "directly into any screening operation, feed hopper, or crusher." Truck dumping is addressed in Section 307.1 - under "material handling". Similar to Section 303.1(b). Enclosed truck dumping is an affected operation - is in Section 301 and would be a stack emission. Any type of stack is addressed by Section 301, Section 302, and Section 303. Active system is in Section 301, Section 302, and Section 303. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
Section 301.1(e):	To add "Opacity observations to determine compliance with this section of this rule shall be conducted in accordance with the techniques specified in Appendix C-Fugitive Dust Test Methods of these rules."
Section 301.2:	To delete "For crushing and screening facilities, the", "of a nonmetallic mineral processing plant", and "all of the following." To add "The" and "described in Section 301.2(a), Section 301.2(b), and Section 301.2(c) of this rule or shall implement process controls described in Section 301.2(a) and Section 301.2(d) of this rule."
Section 301.2(b):	To add "the points listed below for crushers, shaker screens, and material transfer points."
Section 301.2(c):	As originally written, Section 301.2 requires owners and operators of "crushing and screening facilities" to "implement" specified process controls, expressly requiring regulated facilities to "permanently mount watering systems" at

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certain material handling points. Although Section 301.2(b) expressly calls for installation of watering systems, it says nothing about the manner in which the watering systems, once installed, must be operated. To add “Operate watering systems (e.g., spray bars or an equivalent control) on the points listed in Section 301.2(b) of this rule for crushers, shaker screens, and material transfer points, excluding wet plants, to continuously maintain a 4% minimum moisture content.

(1) The watering systems shall be maintained in good operating condition, as verified by daily inspections. (2) The owner and/or operator shall investigate and correct any problems before continuing and/or resuming operations. (3) The owner and/or operator shall conduct soil moisture tests as follows: (a) If the owner and/or operator is required to have in place a Fugitive Dust Control Technician according to Section 309 of this rule, then soil moisture tests shall be conducted twice daily in accordance with the test methods described in Section 502 of this rule. (b) If the owner and/or operator is not required to have in place a Fugitive Dust Control Technician according to Section 309 of this rule, then soil moisture tests shall be conducted daily in accordance with the test methods described in Section 502 of this rule. (c) If the owner and/or operator demonstrates that the 4% minimum moisture content is maintained for a minimum of four weeks, then soil moisture tests may be conducted weekly in accordance with the test methods described in Section 502 of this rule. (d) If the owner and/or operator fails to comply with the opacity limitations described in Section 301.1, Section 306.1, or Section 306.2 of this rule and/or if two consecutive soil moisture tests are below 4%, then the owner and/or operator shall conduct soil moisture tests in accordance with Section 301.2(c)(3)(a) or Section 301.2(c)(3)(b) of this rule, as applicable. (e) If the owner and/or operator of a facility complies with both of the following requirements, then the number of sampling points identified in Section 502.3(c)(1) through (3) of this rule may be reduced: (i) A soil moisture test is conducted in accordance with the test methods described in Section 502 of this rule at the primary crusher, which indicates that at least a 5% minimum moisture content is maintained; and (ii) A demonstration that complies with Section 502.3(d) of this rule is submitted to and approved by the Control Officer and is complied with in accordance with Section 502.3(d) of this rule. (4) The owner and/or operator may request in a permit application, with explanation, an alternative plan that justifies a minimum moisture content other than 4% and that justifies conducting fewer soil moisture tests as are required. In the request, the owner and/or operator shall submit to the Control Officer documentation regarding a minimum moisture content other than 4%, including, but not limited to, economics, emissions rates, water availability, and technical feasibility. In addition, the owner and/or operator shall demonstrate that the proposed alternative compliance demonstration plan will be equivalent in determining compliance with the soil moisture content requirements. Prior approval from the Control Officer and the Administrator shall be received before implementing the plan. d. Enclose and exhaust the regulated process to a properly sized fabric filter baghouse.”

Section 301.2(d):

To add “Enclose and exhaust the regulated process to a properly sized fabric filter baghouse.” A baghouse is needed with the grain loading standard to meet Section 301.1(a). To match Clark County’s Section 34 language regarding “enclose and exhaust the regulated process to properly sized baghouse”.

Section 302.1:

To delete “of an asphaltic concrete plant.”

Section 302.1(a):

To delete “over a 6-minute period.” To remove “over a 6-minute period” from Sections 302.1(a), Section 302.1(b), and Section 302.2. “Over a 6-minute period” is addressed in test methods section.

Section 302.1(b):

To delete “over a 6-minute period.” from Sections 302.1(a), Section 302.1(b), and Section 302.2. “Over a 6-minute period” is addressed in test methods section.

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- Section 302.1(c): To delete “From all cement, lime, and/or fly ash storage silo(s), fugitive dust emissions exceeding 20% opacity” and to add “Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping.” Similar to Section 301.1(d) and Section 303.1(b). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 302.2: To delete “of an asphaltic concrete plant shall implement all of the follow–ing process controls” and to add “shall, from all drum dryers, control and vent exhaust to a properly sized fabric filter baghouse.” Stack emissions are not fugitive emissions - are under process fugitives. Process equipment has process fugitives. Loading a pile is under Section 306. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 302.2(a): To delete “On all cement, lime, and/or fly-ash storage silo(s), install an operational overflow warning system/device. The system/device shall be designed to alert operator(s) to stop the loading operation when the cement, lime, and/or fly-ash storage silo(s) are reaching a capacity that could adversely impact pollution abatement equipment.” Section 302.2(a) is addressed in Section 303.2(a). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 302.2(b): To delete “On existing cement, lime, and/or fly-ash storage silo(s), install a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6-minute period.” Section 302.2(b) is addressed in Section 302.2 and the “5%” is addressed in Section 303.1(a). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 302.2(c): To delete “On new cement, lime, and/or fly-ash storage silo(s), install a properly sized fabric filter baghouse or equivalent device designed to meet a maximum outlet grain loading of 0.01 gr/dscf, with an opacity limit of not greater than 5% over a 6-minute period.” Section 302.2(c) is addressed in Section 302.2 and the “5%” is addressed in Section 303.1(a). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 302.2(d): To delete “From all drum dryers, control and vent exhaust to a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6-minute period.” Section 302.2(d) is addressed in Section 302.2. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.

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- Section 303: To change heading “Concrete Plants And/Or Bagging Operations-Process Emission Limitations And Controls” to “Raw Material Storage And Distribution, Concrete Plants, And/Or Bagging Operations-Process Emission Limitations And Controls.” To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 303.1: To delete “of a concrete plant and/or bagging operation.”
- Section 303.1(a): To delete “7%” and to add “5%.” Discussion that led to the change: Particle size is an indicator of opacity - not a linear relationship, though. “Process Emission Limitations” should include opacity. “controls” might not include opacity. Delete Section 303.2(b), because it is covered in Section 303.1(a). Asphalt - already mixed - is not a “raw material”. Loading a silo can produce emissions. Silo should have “control” but might not. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 303.1(b): To delete “directly into any screening operation, feed hopper, or crusher.” Truck dumping is addressed in Section 307.1 - under “material handling”. Similar to Section 303.1(b). Enclosed truck dumping is an affected operation - is in Section 301, Section 302, and Section 303. Active system is in Section 301, Section 302, and Section 303. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 303.1(c): To delete “Fugitive dust emissions exceeding 20% opacity from truck dumping directly into any screening operation, feed hopper, or crusher.” Truck dumping is addressed in Section 307.1 - under “material handling”. Similar to Section 303.1(b). Enclosed truck dumping is an affected operation - is in Section 301, Section 302, and Section 303. Active system is in Section 301, Section 302, and Section 303. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 303.2: To delete “of a concrete plant and/or bagging operation.”
- Section 303.2(b): To delete “On existing cement, lime, and/or fly-ash storage silo(s), install a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6-minute period.” Section 303.2(b) is addressed in Section 302.2 and the “5%” is addressed in Section 303.1(a). To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
- Section 305: To add “An owner and/or operator of a facility shall provide, properly install and maintain in calibration, in good working order, and in operation, at all times

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air pollution control equipment required by this rule. When selecting air pollution control equipment required by this rule, the owner and/or operator of a facility may consider the site-specific and/or material-specific conditions and logistics of a facility. When doing so, some air pollution control equipment may be more reasonable to implement than others. Regardless, any air pollution control equipment that is installed must achieve the applicable standard(s) required by this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule. The owner and/or operator of a facility may submit a request to the Control Officer and the Administrator for the use of alternative air pollution control equipment. The request shall include the proposed alternative air pollution control equipment, the air pollution control equipment that the alternative would replace, and a detailed statement or report demonstrating that the air pollution control equipment would result in equivalent or better emission control than the equipment prescribed in this rule. Nothing in this rule shall be construed to prevent an owner and/or operator of a facility from making such demonstration. Following a decision by the Control Officer and the Administrator to grant the petition, the facility shall incorporate the alternative air pollution control equipment in any required Operation And Maintenance (O&M) Plan.”

New Section 305.2:

To add “Operation And Maintenance (O&M) Plan Requirements For Dust Control Measures: a. An owner and/or operator of a facility shall provide and maintain, readily available on-site at all times, (an) O&M Plan(s) for equipment associated with any process fugitive emissions and fugitive dust control measures (i.e., gravel pads, wheel washers, truck washers, rumble grates, watering systems, and street sweepers) that are implemented to comply with this rule or an air pollution control permit. b. The owner and/or operator of a facility shall comply with all the identified actions and schedules provided in each O&M Plan.”

Section 306.1:

To delete “The” and to add “For emissions that are not already regulated by an opacity limit, the.” To delete “Section 502” and to add “Section 503.”

Section 306.3:

To delete “and Section 306.2.”

Section 306.3(b):

To delete “Maricopa County Environmental Services Department Air Quality Division” and to add “Maricopa County Air Quality Department.”

Section 306.3(c)(1)(a):

To delete “and Section 306.2.”

Section 306.3(c)(1)(b):

To delete “Maintain a visible crust by applying water” and to add “Before and during active operations, apply water.” To delete “or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in Section 503 and Section 504 of this rule” and to add “to keep the soil visibly moist.”

Section 306.3(c)(2):

To add “inactive.”

Section 306.3(c)(2)(a):

To delete “visible” and to add “soil”. To delete “Section 503 and Section 504” and to add “Section 505.”

Section 306.3(c)(3):

To delete “a” and to add “an inactive.”

Section 306.3(c)(3)(b):

To delete “visible” and to add “soil.” To delete “Section 503 and Section 504: and to add “Section 505.”

Section 306.4:

To delete “internal.”

Section 306.4(a):

To add “For unpaved roads” and “silt content exceeding 6%.”

Section 306.4(b):

To delete “Silt content exceeding 6%” and to add “For unpaved parking and staging areas, silt loading equal to or greater than 0.33 oz/ft² or silt content exceeding 8%.”

Section 306.5(a):

To add “with an open area or a disturbed surface area on which no activity is occurring (including areas that are temporarily or permanently inactive).” To delete “any open storage pile and material handling or surface soils where support equipment and vehicles operate in association with.” To delete “facility” and to add “area.”

Section 306.5(a)(1):

To delete “visible” and to add “soil.”

Section 306.5(a)(7):

To delete “of the Environmental Protection Agency (EPA).”

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Section 306.5(b):	To delete “disturbance” and to add “visibly distinguishable stabilization characteristics.” To delete “each representative surface shall be tested” and to add “the owner and/or operator shall test each representative surface.” To delete “Section 503 and Section 504” and to add “Section 505.” To delete “and shall be included in or eliminated from the total size assessment of disturbed surface area(s) depending upon test method results.”
Section 307:	To delete “of the Environmental Protection Agency (EPA).” To delete “of the EPA.” To add “When engaged in the activities described in Section 301 and Section 307.1 through Section 307.9 of this rule, the owner and/or operator of a facility shall install, maintain, and use fugitive dust control measures as described in Section 307.1 through Section 307.9 of this rule, as applicable.”
Section 307.1:	To delete “in compliance with Section 306.1 and Section 306.5 of this rule.” To add “Section 306.2.”
Section 307.1(a):	To delete “stacking.” Truck dumping is addressed in Section 307.1 - under “material handling”. Similar to Section 303.1(b). Enclosed truck dumping is an affected operation - is in Section 301 and would be a stack emission. Any type of stack is addressed by Section 301, Section 302, and Section 303. Active system is in Section 301, Section 302, and Section 303. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
Section 307.1(b):	To delete “stacking.” Truck dumping is addressed in Section 307.1 - under “material handling”. Similar to Section 303.1(b). Enclosed truck dumping is an affected operation - is in Section 301 and would be a stack emission. Any type of stack is addressed by Section 301, Section 302, and Section 303. Active system is in Section 301, Section 302, and Section 303. To re-organize requirements based on equipment and discrete processes (e.g., lime silo at an aggregate plant) rather than based on the type of plant or facility (e.g., an aggregate plant). As originally written, control measures were required based-on the type of plant or facility and, as such, did not specifically address combinations of equipment and discrete processes at a plant or facility.
Section 307.1(b)(1):	To delete “in compliance with Section 306.1 and Section 306.5 of this rule.”
Section 307.1(b)(2):	To delete “in compliance with Section 306.1 and Section 306.5 of this rule.”
Section 307.1(b)(3):	To delete “If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule.”
Section 307.1(b)(4):	To delete “If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule.”
Section 307.1(b)(5):	To delete “Meet one of the stabilization standards in Section 306.5 of this rule.”
Re-Numbered Section 307.1(b)(5):	To add “or.” To delete “If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule.”
New Section 307.1(b)(6):	To add “Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings”.
Section 307.1(c):	To delete “in compliance with Section 306.1 and Section 306.5 of this rule.”
Section 307.1(d):	To delete “in compliance with Section 306.1 and Section 306.5 of this rule.”
Section 307.2:	To delete “stabilize surface soils where loaders, support equipment, and vehicles will operate by implementing one of the following fugitive dust control measures, in compliance with Section 306.4 and/or Section 306.5 of this rule, as applicable.” To add “implement one of the following fugitive dust control measures on areas other than the areas identified in Section 307.3 and Section 307.4 of this rule where loaders, support equipment, and vehicles operate.”
Section 307.2(a):	To delete “Pre-water surface soils.” To add “Apply and maintain water.”

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Section 307.3:	To add in heading "That Are Not In Permanent Areas Of A Facility."
Section 307.3(a):	To delete "in compliance with Section 306.4 of this rule."
Section 307.3(b):	To delete "implementing one" and to add "it is determined that none." To delete "is determined to be technically infeasible as obtained/approved in writing by the Control Officer and the Administrator of the Environmental Protection Agency (EPA) and as approved in the Dust Control Plan" and to add "can be technically and feasibly implemented." To add "Such determination shall be made and approved in writing by the Control Officer and the Administrator and shall be approved in the Dust Control Plan."
Section 307.4(a):	To delete "internal" and to delete "in the permanent areas of the facility /operation that include entrances, exits, warehouses and maintenance areas, office areas, concrete plant areas, asphaltic plant areas, and parking and staging areas, as approved in the Dust Control Plan."
Section 307.4(b):	To delete "internal roads subject to Section 307.4(a) of this rule" and to add "paved surfaces or cohesive hard surfaces, except." To delete "entering and exiting" and to add "driving on roads leading to and from."
Section 307.4(c):	To delete "Section 307.5" and to add "Section 307.6." To delete "and that comply with Section 306.5 of this rule."
Section 307.4(d):	To add "The owner and/or operator of a facility shall pave or install a cohesive hard surface on permanent areas of a facility on which vehicles drive, as approved in the Dust Control Plan."
Section 307.6(a)(1):	To delete "The rumble grate and wheel washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks. The owner and/or operator of a facility may be allowed to install a rumble grate and wheel washer less than 30 feet prior to each exit, if the owner and/or operator of a facility can demonstrate to the Control Officer by September 30, 2005, that there is not adequate space to install a rumble grate and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout" and to add "(a) The rumble grate and wheel washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks. (b) The owner and/or operator of a facility may be allowed to install a rumble grate and wheel washer less than 30 feet prior to each exit if the owner and/or operator of a facility can demonstrate to the Control Officer that there is not adequate space to install a rumble grate and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout. (c) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the rumble grate."
Section 307.6(a)(4):	To delete "internal."
Section 307.6(a)(5):	To delete "internal."
Section 307.6(b)(1):	To delete "The owner and/or operator of a facility may be allowed to install a rumble grate, wheel washer, or truck washer less than 30 feet prior to each exit, if the owner and/or operator of a facility can demonstrate to the Control Officer by September 30, 2005, that there is not adequate space to install a rumble grate, wheel washer, or truck washer no less than 30 feet prior to each exit and that a rumble grate, wheel washer, or truck washer at a shorter distance will be adequate to prevent trackout" and to add "(a) The owner and/or operator of a facility may be allowed to install a rumble grate, wheel washer, or truck washer less than 30 feet prior to each exit if the owner and/or operator of a facility can demonstrate to the Control Officer that there is not adequate space to install a rumble grate, wheel washer, or truck washer no less than 30 feet prior to each exit and that a rumble grate, wheel washer, or truck washer at a shorter distance

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	will be adequate to prevent trackout. (b) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the rumble grate."
Section 307.6(b)(4):	To delete "internal roads."
Section 307.6(c)(1):	To delete "internal."
Section 307.6(c)(2):	To delete "internal."
Section 307.6(c)(3):	To delete "internal."
Section 307.6(c)(4):	To delete "Section 230" and to add "Section 229."
Section 307.6(e):	To delete "internal" from heading and to add "Identified In The Dust Control Plan." To delete "internal" from introductory sentence and to add "identified in the Dust Control Plan for a facility."
Section 307.6(e)(1):	To delete "internal."
Section 307.6(e)(2):	To delete "internal" and "as necessary to comply with Section 306 of this rule."
Section 307.6(e)(4):	To delete "internal."
Section 307.7:	To add "so as to meet all of the requirements in this rule."
Section 307.8:	To delete "one of."
Section 307.8(a):	To delete "internal" and to add "or."
Section 307.8(b):	To delete "internal" and "or" and to add "and."
New Section 308:	To add "The owner and/or operator of a facility subject to this rule shall erect and maintain a facility information sign at the main entrance such that members of the public can easily view and read the sign at all times. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information".
New Section 308.1:	To add "Facility name and permittee's name."
New Section 308.2:	To add "Current number of the air quality permit or of authority to operate under a general permit."
New Section 308.3:	To add "Name and local phone number of person(s) responsible for dust control matters; and."
New Section 308.4:	To add "Text stating: "Dust complaints? Call Maricopa County Air Quality Department - (Insert the accurate Maricopa County Air Quality Department complaint line telephone number)."
Section 309:	To add "or with five acres or more of disturbed surface area subject to a permit, whichever is greater" and to delete "or his designee."
Section 309.1:	To add "to have full authority to ensure that fugitive dust control measures are implemented on-site and."
Section 309.2:	To add "Be trained in accordance with the Comprehensive Dust Control Training Class conducted or approved by the Control Officer, successfully complete, at least once every three years, such Comprehensive Dust Control Training Class, and have a valid dust training certification identification card readily accessible on-site while acting as a Fugitive Dust Control Technician."
Section 309.4:	To delete "Be available within 30 minutes" and to add "Be on-site at all times during primary dust generating operations related to the purposes for which the permit was obtained."
Section 309.6:	To add "Be authorized by the owner and/or operator of the facility to ensure that the site superintendent or other designated on-site representative of the owner and/or operator of the facility and water truck and water pull drivers for each site be trained in accordance with the Basic Dust Control Training Class conducted or approved by the Control Officer with jurisdiction over the site and successfully complete, at least once every three years, such Basic Dust Control Training Class."
New Section 310.1:	To add "At least once every three years, the site superintendent or other designated on-site representative of the permit holder, if present at a site that has more than one acre of disturbed surface area that is subject to a permit issued by the Control Officer requiring control of PM ₁₀ emissions from dust generating

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- operation, shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.”
- New Section 310.2: To add “At least once every three years, water truck and water-pull drivers shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.”
- New Section 310.3: To add “All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Basic Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer. Completion of the Comprehensive Dust Control Training Class, as required in Section 309.2 of this rule, shall satisfy the requirement of this section of this rule.”
- Section 311: To delete “The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all fugitive dust control measures to be implemented, in order to comply with Section 306 and Section 307 of this rule. The Dust Control Plan shall, at a minimum, contain all the information described in Rule 310 (Fugitive Dust) of these rules. All other criteria associated with the Dust Control Plan shall meet the criteria described in Rule 310 (Fugitive Dust) of these rules.”
- New Section 311.1: To add “The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all fugitive dust control measures to be implemented, in order to comply with Section 305.2, Section 306, Section 307, and Section 309 of this rule.”
- New Section 311.2: To add “The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all equipment associated with any process fugitive emissions to be implemented, in order to comply with Section 301 and Section 305.2 of this rule and that includes all of the information in Section 311.2(a) and Section 311.2(b) of this rule, as applicable. If an alternative plan for conducting required soil moisture tests is approved by the Control Officer, included in a Dust Control Plan, and implemented by the owner and/or operator, as allowed under Section 301.2(c)(6) of this rule, and if the Control Officer determines that such alternative plan included in a Dust Control Plan has been followed, yet fugitive dust emissions still exceed the standards of this rule, then the Control Officer shall issue a written notice to the owner and/or operator explaining such determination. The owner and/or operator shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer’s written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule. a. Documentation for the soil moisture content in order to comply with Section 301.2 of this rule. b. Documentation of soil moisture analysis for each move notice regarding portable sources.”
- New Section 311.3: To add “The Dust Control Plan shall, in addition, contain all the information described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.”
- New Section 311.4: To add “All other criteria associated with the Dust Control Plan shall meet the criteria described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.”
- New Section 311.5: To add “The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit. Failure to comply with the provisions of an approved Dust Control Plan shall be deemed a violation of this rule.”
- New Section 311.6: To add “With each move notice regarding portable sources, the owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that meets the requirements of this section of this rule.”

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New Section 312:	To add "An owner and/or operator of a facility subject to this rule shall be subject to the standards and/or requirements of this rule at all times. Failure to comply with any one of the following requirements shall constitute a violation."
New Section 312.1:	To add "Process emission limitations and controls described in Section 301, Section 302, and Section 303 of this rule."
New Section 312.2:	To add "Operation and maintenance (O&M) plan requirements for an emission control system and for dust control measures described in Section 305 of this rule."
New Section 312.3:	To add "Fugitive dust emission limitations described in Section 306 of this rule."
New Section 312.4:	To add "Fugitive dust control measures described in Section 307 of this rule."
New Section 312.5:	To add "Facility information sign requirement described in Section 308 of this rule."
New Section 312.6:	To add "Fugitive Dust Control Technician requirements described in Section 309 of this rule."
New Section 312.7:	To add "Basic Dust Control Training Class requirements described in Section 310."
New Section 312.8:	To add "Dust Control Plan requirements described in Section 311 of this rule."
New Section 312.9:	To add "Monitoring and recordkeeping requirements described in Section 500 of this rule."
New Section 312.10:	To add "Any other requirements of this rule."
Section 401.1:	To delete "Dust Control Plan: When complying with Section 309 of this rule, if a Dust Control Plan is required to be revised, then a revised Dust Control Plan shall be submitted to the Control Officer by September 30, 2005 or three months after rule adoption, whichever comes first" and to add "O&M Plan."
New Section 401.1(a):	To add "The owner and/or operator of an existing facility shall revise/update all O&M Plans by (insert date) or three months after rule adoption, whichever is first."
New Section 401.1(b):	To add "The Control Officer shall take final action on an O&M Plan revision/update to address the newly amended provisions of this rule within 30 calendar days of the filing of the complete O&M Plan revision/update. The Control Officer shall notify the applicant in writing of his approval or denial."
Section 401.2:	To delete "Pressure Control System: When complying with Section 303.2(e) of this rule, a pressure control system shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first" and to add "Dust Control Plan."
New Section 401.2(a):	To add "The owner and/or operator of an existing facility shall revise/update all Dust Control Plans by (insert date) or three months after rule adoption, whichever is first."
New Section 401.2(b):	To add "The owner and/or operator of a new facility shall submit to the Control Officer a Dust Control Plan at the time such owner and/or operator submits a permit application to the Control Officer."
New Section 401.2(c):	To add "The Control Officer shall take final action on a Dust Control Plan revision/update to address the newly amended provisions of this rule within 30 calendar days of the filing of the complete Dust Control Plan revision/update. The Control Officer shall notify the applicant in writing of his approval or denial."
New Section 401.2(d):	To add "The Dust Control Plan or the Dust Control Plan revision/update must be approved by the Control Officer before operations begin."
Section 401.3:	To delete "Operational Overflow Warning System/Device: When complying with Section 302.2(a) and/or Section 303.2(a) of this rule, an operational overflow warning system/device shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first" and to add "Basic Dust Control Training Class: No later than December 31, 2008, a site superintendent or other designated on-site representative of the permit holder, water truck

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- drivers, and water pull drivers shall have successfully completed the Basic Dust Control Training Class, as described in Section 310 of this rule.”
- Section 401.4: To delete “Fugitive Dust Control Technician: When complying with Section 308 of this rule, a Fugitive Dust Control Technician shall be in place by December 31, 2005 or six months after rule adoption, whichever comes first” and to add “Comprehensive Dust Control Training Class: No later than June 30, 2008, a Fugitive Dust Control Technician shall have successfully completed the Comprehensive Dust Control Training Class, as described in Section 309 of this rule.”
- Section 401.5: To delete “Surface Stabilization Where Support Equipment And Vehicles Operate: When complying with Section 307.2 of this rule, surface stabilization and/or paving shall be completed by December 31, 2005 or six months after rule adoption, whichever comes first.”
- Section 401.6: To delete “Trackout: When complying with Section 307.6 of this rule, a rumble grate, wheel washer, or truck washer shall be installed and a schedule for using PM₁₀ efficient South Coast Air Quality Management Rule 1186 certified street sweepers shall be in place by January 1, 2006.”
- Section 401.7: To delete “Process Emission Limitations And Controls: When complying with Section 301, Section 302, and/or Section 303 of this rule, process emission limitations shall be complied-with and controls shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first.”
- Section 501: To add in heading “Monitoring”.
- Section 501.2(a)(4): To add “produced per day (cubic yards/day)”, “volume of”, and “(tons/day).”
- Section 501.2(a)(5): To delete “(cubic yards/day)” and to add “(tons per day).”
- New Section 501.2(a)(7): To add “For facilities that assert to be below the thresholds in Section 307.6(a) and Section 307.6(e)(1) of this rule, number of aggregate trucks, mixer trucks, and/or batch trucks exiting the facility.”
- Section 501.2(c)(3): To add “For watering systems (e.g., spray bars or an equivalent control): (a) Date, time, and location of each moisture sampling point; and (b) Results of moisture testing.”
- Section 501.3: To delete “ECS.”
- Section 501.3(a): To add heading “For Any ECS, Any Other Emission Processing Equipment, And Any ECS Monitoring Devices That Are Used Pursuant To This Rule Or To An Air Pollution Control Permit.”
- Section 501.3(b): To add “For Equipment Associated With Any Process Fugitive Emissions And Any Fugitive Dust Control Measures That Are Implemented To Comply With This Rule Or To An Air Pollution Control Permit: (1) A written record of self-inspection on each day that a facility is actively operating. Self-inspection records shall include daily inspections or in compliance with O&M Plan requirements, whichever is more frequent; (2) Maintenance of street sweepers; and (3) Maintenance of trackout control devices, gravel pads, wheel washers, and truck washers.”
- Section 501.4: To delete “An owner and/or operator of a facility shall compile, maintain, and retain records as described in Rule 310-Fugitive Dust of these rules” and to add “An owner and/or operator of a facility shall compile, maintain, and retain a written record of self-inspection of all fugitive dust control measures implemented, in order to comply with the Dust Control Plan, on each day that the facility is actively operating. Self-inspection records shall include information as described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.”
- New Section 501.5: To add “Basic Dust Control Training Class Records: An owner and/or operator of a facility shall compile, maintain, and retain a written record for each employee subject to Section 310 of this rule. Such written records shall include the name of the employee, the date of the Basic Dust Control Training Class that such employee successfully completed, and the name of the agency/representative who conducted such class.”

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- Section 502: To delete “40 Part 60, Appendix A Test Methods Adopted By Reference” and to add “For Process Emissions And Controls.” To add “Compliance determinations for activities regulated by Sections 301, 302, and/or 303 of this rule shall be made according to the.” To delete “the.” To add “Such subparts of CFR Part 60, Appendix A, adopted as of July 1, 2004.” To delete “Maricopa County Environmental Services Department” and to add “Maricopa County Air Quality Department.”
- Section 502.2: To delete in heading “Determination” and to add “Observations.” To delete “Opacity observations to measure the opacity of visible emissions shall be conducted in accordance with the test methods described in Appendix C (Fugitive Dust Test Methods) of these rules” and to add “Opacity observations to measure visible emissions from activities regulated by Sections 301, 302, and/or 303 of this rule shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations). Emissions shall not exceed the applicable opacity standards described in Section 301, Section 302, and Section 303 of this rule for a period aggregating more than three minutes in any 60-minute period.”
- New Section 502.3: To add “Soil Moisture Testing For Watering Systems: a. If twice daily moisture sampling is required, such sampling shall be conducted within one hour of startup and again at 3 pm or within one hour prior to daily shutdown but no less frequently than once every 8-hour period.. b. If daily moisture sampling is required, such sampling shall be conducted within one hour after startup. c. Moisture testing shall be conducted on all crushers, shaker screens, and material transfer points (excluding wet plants). Unless prior approval from the Control Officer is granted, moisture testing shall be conducted at the following sample points: (1) Within 10 feet from the point where crushed aggregate material is placed on the discharge belt conveyor from the crusher; (2) Within 10 feet from the point where screened aggregate material is placed on the conveyor; and (3) From each stacker point. d. The number of sampling points identified in Section 502.3(c)(1) through (3) of this rule may be reduced, if the owner and/or operator of a facility complies with all of the following requirements: (1) A 5% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in Section 502 of this rule, is maintained at the primary crusher; (2) A minimum of 20 soil moisture samples are taken at all of the points identified in Section 502.3(c) of this rule; (3) A 4% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in Section 502 of this rule and as demonstrated by the soil moisture samples required by Section 502.3(d)(2) of this rule, is maintained at all of the points identified in Section 502.3(c) of this rule; and (4) A written request is submitted to and approved by the Control Officer to revise/modify the Dust Control Plan to reflect the change in moisture content and the reduced number of sampling points according to the demonstration made by the owner and/or operator of a facility according to this section of this rule. e. Moisture testing is not required on a crusher and/or screen plant equipped with a baghouse or fabric filter, electrostatic precipitator, or wet scrubber, excluding wet spray bars, for control of particulate matter. f. Moisture testing shall include all aggregate material less than 0.25 inch in diameter. g. Moisture testing shall be conducted in accordance with the requirements of American Society For Testing And Materials C566-97 (2004) “Standard Test Method For Total Evaporable Moisture Content Of Aggregate By Drying” with the exception that smaller sample portions may be used.”
- Section 503: To add “Compliance Determination For Emissions And Controls That Are Regulated By Section 304 And/Or Section 306 Of This Rule: To determine compliance with the fugitive dust emission limitations described in Section 304 and/or Section 306 of this rule, opacity observations shall be conducted in

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	accordance with the techniques specified in Appendix C (Fugitive Dust Test Methods) of these rules.”
Re-Numbered Section 504.1:	To delete “D2216-98” and to add “D2216-05.” To delete “1998” and to add “2005.”
Re-Numbered Section 504.2:	To delete “D1557-91 (1998)” and to add “D1557-02e1.” To delete “1998” and to add “2002.”
Re-Numbered Section 505.1:	To add “(not to exceed 6%)” and “(not to exceed 8%).”
Re-Numbered Section 505.2:	To delete “visible” and to add “soil.” To delete “/Steel Ball”. To delete “visible” and to add “soil.”
Re-Numbered Section 505.8:	To delete “of the EPA.”

6. Demonstration of compliance with A.R.S. § 49-112:

Under ARS § 49-479(C), a county may not adopt a rule or ordinance that is more stringent than the rules adopted by the Director of the Arizona Department of Environmental Quality (ADEQ) for similar sources unless it demonstrates compliance with the requirements of ARS § 49-112.

ARS § 49-112 (A):

When authorized by law, a county may adopt a rule, ordinance, or other regulation that is more stringent than or in addition to a provision of this title or rule adopted by the director or any board or commission authorized to adopt rules pursuant to this title if all the following conditions are met:

1. The rule, ordinance or other regulation is necessary to address a peculiar local condition;
2. There is credible evidence that the rule, ordinance or other regulation is either:
 - (a) Necessary to prevent a significant threat to public health or the environment that results from a peculiar local condition and is technically and economically feasible.
 - (b) Required under a federal statute or regulation, or authorized pursuant to an intergovernmental agreement with the federal government to enforce federal statutes or regulations if the county rule, ordinance or other regulation is equivalent to federal statutes or regulations.

The MCAQD is proposing to revise Rule 316 in order to address a peculiar local condition: EPA’s finding that the Phoenix Nonattainment Area did not attain the 24-hour PM₁₀ standard by the deadline mandated in the Clean Air Act (CAA), December 31, 2006. (72 FR 31183, June 6, 2007). The Phoenix Nonattainment Area is the only nonattainment area designated serious for PM₁₀ in Arizona. Consequently stronger regulations must be adopted in this area to address a serious health threat. Under Section 189(d) of the CAA, serious PM₁₀ nonattainment areas that fail to attain are required to submit within 12 months of the applicable attainment date, “plan revisions which provide for attainment of the PM₁₀ air quality standard and, from the date of such submission until attainment, for an annual reduction in PM₁₀ or PM₁₀ precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area.” In accordance with the CAA section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable. The region needs to submit to a Five Percent Plan for PM₁₀ by December 31, 2007. The Phoenix Nonattainment Area is one of three areas in the entire country for which EPA has issued a finding that Section 189(d) has been triggered. Because of this, the revision complies with A.R.S. § 49-112 (A)(1) and A.R.S. § 49-112 (A) (2).

In addition, several of the proposed revisions are required to by ARS § 49-474.01(A)(5, 6 and 11), ARS §§ 49-474.05 and 49-474.06 recently enacted in Senate Bill 1552. Therefore, a demonstration of compliance with ARS § 49-112 as required by the County’s general grant of rulemaking and ordinance authority in ARS § 49-479 does not apply to those proposed rule provisions.

7. A reference to any study relevant to the rule that the agency reviewed and either proposes to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

Not applicable

8. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision:

Not applicable

9. The preliminary summary of the economic, small business, and consumer impact:

9.1 Summary

The Maricopa County Air Quality Department (MCAQD) is proposing revisions to Rule 316. As required by ARS § 41-1055, this economic, small business and consumer impact statement includes a discussion of the persons most likely to

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be impacted by the proposed rule, along with a cost-benefit analysis of the proposed rule's probable impact on the MCAQD as the implementing agency and other public agencies, other political subdivisions of the state, and businesses affected by the proposed rulemaking. Where data are unavailable or highly uncertain, this statement discusses the limitations of the data, the methods used to develop qualitative and/or quantitative estimates, and attempts to characterize all probable impacts in qualitative terms.

To submit or request additional data on the information included in the economic, small business and consumer impact statement, please contact:

Jo Crumbaker or Johanna Kuspert
Planning and Analysis Division
Maricopa County Air Quality Department
1001 N. Central Ave. Suite 595
Phoenix, AZ 85004
jcrumbak@mail.maricopa.gov or jkuspert@mail.maricopa.gov

9.2 Identification of the Proposed Rulemaking

Each proposed change to Rule 316 is described in detail under Item 5 above. While some changes are primarily administrative in nature or designed to clarify existing County air quality rules, a subset of the proposed rule changes have been deemed to have potentially significant economic impacts, and are thus explicitly addressed in this Economic Impact Statement (EIS). These rule changes and the relevant sections include:

- Required control measure options for crushing and screening operations: Rule 316, § 301.2
- Addition of operation and maintenance (O & M) plan requirements for dust control measures: Rule 316, § 305.2
- 20% opacity for a period aggregating more than three minutes in any 60-minute period: Rule 316, § 306.1
- Requirement for facility information sign: Rule 316, § 308
- Dust control training classes: Rule 316, § 310

9.3 Entities Expected To Be Affected By, Bear The Costs Of, Or Directly Benefit From The Proposed Rulemaking

Entities directly impacted by this rulemaking include certain permitted sources, pollution control vendors, contractors, consultants, lawyers, the County, private persons and consumers. With the revisions to Rule 316, Rule 316 requires compliance with emission limitations and the implementation of process controls and fugitive dust control measures for nonmetallic mineral processing plants, asphaltic concrete plants, and concrete plants and/or bagging operations. An estimated 144 facilities in these industries are regulated by Maricopa County and approximately 150 portable facilities that may operate in Maricopa County are regulated by the ADEQ. Nonmetallic mineral processing plants and/or rock product plants can be classified into the following categories:

- Construction Sand And Gravel
- Industrial Sand And Gravel
- Concrete Batching
- Hot Mix Asphalt
- Batch Mix
- Parallel Flow Drum Mix
- Counterflow Drum Mix

9.4 Cost-Benefit Analysis

9.4.1 The Probable Costs And Benefits To The Implementing Agency And Other Agencies Directly Affected By The Implementation And Enforcement Of The Proposed Rulemaking

Rule 316, § 301.2: Required control measure options for crushing and screening process emissions: Maricopa County and ADEQ will incur the additional costs associated with the review of the revised dust control plans that incorporate the new moisture standard and sampling frequency as a result of modifying the required control measures for crushing and screening process emissions. 51 out of the 144 Maricopa County sources include crushing or screening. Assuming ADEQ has a similar percent, another 53 sources may have to revise their dust control plans. The County estimates that each review will take approximately 3 hours @ \$27.50 per hour resulting in a total cost of \$8580. No other agencies will be affected by this rule.

Rule 316, § 305.2: Addition of operation and maintenance (O&M) plan requirements for dust control measures: Maricopa County and ADEQ will incur additional costs as a result of the change in the existing rule requiring

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owners/operators to revise their O&M Plan and incorporate the O&M Plan into the Dust Control Plan already required under this rule. The costs for 104 facilities were estimated in the paragraph above. The review of the revised plans for the remaining estimated 190 sources will total an additional \$15,675. No other agencies will be affected by this rule.

Rule 316, § 306.1: 20% opacity for a period aggregating more than three minutes in any 60-minute period: Maricopa County and ADEQ will not incur any additional costs associated with the use of the time-exception form of the opacity standard.

Rule 316, § 308 Requirement for facility information sign: Maricopa County and ADEQ will not incur any additional costs associated with the rule requirement for an owner/operator to install a facility information sign.

Rule 316, § 310 Basic dust control training classes: Maricopa County will hire four additional FTEs to coordinate and conduct dust control training. Annual costs associated with the four additional FTEs, database maintenance, training materials, and room rental are estimated to be \$382,000. One-time costs are estimated to be \$460,000 for database development, equipment costs, and training materials. MCAQD estimates that approximately 10.7% of these costs will be allocated to the facilities and personnel subject to this rulemaking.

9.4.2 Probable Costs And Benefits To Other Political Subdivisions of the State

It is assumed that the only potential impact on other agencies and other political subdivisions of the state would be in a limited number of instances where these entities are themselves permit holders for activities regulated under Rule 316. As this occurs rather infrequently and these permits comprise only a small fraction of all regulated activity under Rule 316, it is anticipated that compliance with Rule 316 will impose no significant economic impact on any other agency or political subdivision of the state.

9.4.3 Probable Costs And Benefits To Businesses Directly Affected By The Proposed Rulemaking

Rule 316, § 301.2: Required control measure options for crushing and screening process emissions: Owners/Operators regulated by Rule 316 with process emissions from crushing and screening operations will be required to pay for any increased cost associated with implementing one of the two possible control measure options provided under the rule revision as outlined above. There are no additional costs associated with the requirements of § 301.2(a) and § 301.2(b), since these requirements are currently required under the existing rule. The only cost increases are associated with one of the control measure options that requires operating watering systems to continuously meet soil moisture requirements and soil moisture testing under § 301.2(c) and the second control measure option that requires owners to enclose and exhaust the regulated process to a properly sized fabric filter baghouse under § 301.2(d). Available cost data are limited, but some example costs are discussed below. The baghouse system option was added in response to stakeholder comments in order to increase flexibility in the rule.

The total annual cost to install an 8000 cubic feet per minute baghouse used to control crushing emissions is estimated to be \$77,000 (Justice & Associates, Inc., 2007). The cited costs were based on a 1 year project life for a temporary construction project. The baghouse cost includes the purchase price, freight, taxes, insurance, engineering, enclosures, duct work, and compressor. Costs will vary depending on the required size which will be based on airflow throughput requirements.

The total annual cost of continuous watering to maintain soil moisture content is estimated to be \$111,000 (Justice & Associates, Inc., 2007). Each source will be required to sample an estimated 2 to 10 or more sample points. The proposed rule does include an option to reduce both the number of sample points after 20 samples and the frequency of sampling after sampling for 4 weeks. One-time only expenses will include the installation of sampling platforms and guards and the purchase of a scoop, scale and microwave. Assuming that each sample takes approximately 0.5 hours to take and process and a personnel cost of \$35.00 per hour, each sample will cost \$17.50. The per facility cost are estimated to range from \$35 to \$210 per test required. Per day costs are estimated to range from \$35 to \$420. The County has not received specific information on the labor costs and time necessary to better quantify the moisture testing impacts and solicits additional information at this time.

Rule 316, § 305.2: Addition of operation and maintenance (O&M) plan requirements for dust control measures: Owners/operators of facilities under Rule 316 will be required to pay for the one-time costs associated with developing an O&M Plan and incorporating the O&M Plan into the Dust Control Plan already required under this rule. There is insufficient data at this time to delineate the labor time required to develop the O&M Plan.

Rule 316, § 306.1: 20% opacity for a period aggregating more than three minutes in any 60-minute period: The new data reduction methods for the existing opacity standard will require that owners/operators more closely monitor their activities, processes, and controls to ensure proper operation at all times. As described in #5 above, a number of western serious PM₁₀ nonattainment areas administer a time-exception data reduction methodology for their visible opacity limits. Furthermore, an EPA study (Office of Air Quality Planning and Standards, “Opacity Regulations: A Summary of State Regulations and Rulemaking Status”, Special Report February 1983) contains information indicating that the state or a local agency in 28 states has adopted a time-exception form of data reduction for their opacity standard. Those areas contain many similar sources that comply with time-exception data reduction methods for visible emission standards and are in the same business as sources in Maricopa County. To date no source has provided examples of the activities, processes or controls that may need to be modified to comply with this new requirement. The MCAQD is asking for information or examples that would allow for more than a qualitative analysis of the economic impact of the proposed standard.

Rule 316, § 308: Requirement for facility information sign: Owners/operators subject to this rule will bear the costs of installing the required facility information sign. Since the lettering on the sign is only required to be 4 inches high, costs are expected to be minimal.

Rule 316, § 310 Basic dust control training classes: It is anticipated that the MCAQD fee for the basic dust control training class will be \$25. Each attendee will spend 4 hours in class, plus an estimated 1.5 hours for travel time and recordkeeping. Assuming an average wage of \$24.23/hour, the indirect costs of registering under this program would be \$133.27, for a total cost per registrant of \$158.27, and a total cost on businesses of all sizes impacted by this rule of \$1,635,879.

Rule 316, § 309.2: Comprehensive dust control training class: It is anticipated that the MCAQD fee for the comprehensive dust control training class will be \$50. Each attendee will spend 8 hours in class, plus an estimated 1.5 hours for travel time and recordkeeping. Assuming an average wage of \$29.27/hour, the indirect costs of registering under this program would be \$278.07, for a total cost per registrant of \$328.07, and a total cost on businesses of all sizes impacted by this rule of \$654,162.

9.5 Impact On Private And Public Employment

Estimates of increased workloads and anticipated additional staff (FTE’s) required for the MCAQD to design, implement, and conduct the proposed programs associated with the proposed revisions to Rule 316 have been quantified individually in section 9.4.1 above. Since the MCAQD will be the implementing entity for such proposed programs, no other significant impacts on public-sector employment of other agencies or political subdivisions of the state are anticipated. The potential financial impacts on permit holders (businesses and individuals), on a per-case basis, and cumulative impacts on all permit holders, have been described and quantified, insofar as possible, in section 9.4.3 above.

Rule 316, § 301.2: Required control measure options for crushing and screening process emissions: As discussed above, owners/operators of facilities under Rule 316 with process emissions from crushing and screening operations will be required to pay for cost increases associated with implementing one of the two possible control measure options provided under the rule revision as outlined above. The businesses directly affected by the proposed Rule 316 revision may be forced to offset any additional costs incurred in order to comply with the proposed rules. Businesses may attempt to offset these additional costs by: (1) increasing prices of goods and services which may adversely affect sales; (2) reducing employee pay rates, and/or (3) eliminating jobs.

Based on the cost data available, the MCAQD does not have sufficient data at this time to quantitatively evaluate potential employment impacts for businesses impacted by the proposed Rule 316 revision.

Rule 316, § 305.2: Addition of operation and maintenance (O&M) plan requirements for dust control measures: Owners/operators of facilities under Rule 316 will be required to pay for the one-time costs associated with developing an O&M plan and incorporating the O&M plan into the Dust Control Plan already required under this rule. Costs incurred by businesses under the proposed rule change are not expected to have any effect on employment.

Rule 316, § 306.1: 20% opacity for a period aggregating more than three minutes in any 60-minute period: The County has not yet received process specific examples affected by this revision in data reduction methodology and does not believe that employment will be affected by the proposed rule change.

Rule 316, § 308: Requirement for facility information sign: Since costs for the installation of a facility information sign are expected to be minimal, employment will not be affected at businesses under the proposed rule change.

Rule 316, §§ 309.2 and 310: Basic and comprehensive dust control training class: It is anticipated that the MCAQD, as the implementing agency, will require approximately 2.2 additional FTE's to oversee and implement these programs. The MCAQD is currently in the planning stages to certify other third-party entities to conduct these training programs, so some additional private-sector employment impact is likely, but this impact cannot yet be quantified precisely.

9.6 Probable Impact Of The Proposed Rule Making On Small Businesses

For all proposed rule changes discussed in this analysis, a description of affected entities of all sizes is contained in Section 9.3 above. Due to constraints in time, available resources, and readily accessible current data, no reliable estimates on the separate impact on small businesses have yet been developed. Several rule changes such as the frequency of moisture testing and the requirement to have a dust control coordinator onsite at all times include size cut-offs. As a result the following general conclusion is preliminary. For the reasons stated in item #5 of the preamble, and due to the inherent difficulty in identifying all sources which are small businesses, including the possibility that such status may change from year to year, the County has determined that it is not feasible to apply a separate standard to small businesses. The County does employ an ombudsman in the Business Resource Division, to whom small businesses may address their issues with regard to compliance with the rule.

9.6.1 Alternative Methods Considered To Reduce Impact On Small Business

Rule 316, §§309.2 and 310: Basic and comprehensive dust control training programs: The proposed rulemaking imposes training requirements for site superintendents or other on-site representatives for facilities with greater than 1 acre (43,560 sq. ft.) of disturbed surface area that are subject to a permit by the Control Officer. The only qualitative assessment conducted for business-size relates to the size of a facility's disturbed surface area. Based on this criterion, the financial and administrative burden will be more limited for facilities that do not meet the 1 acre size criteria. No other alternatives have been considered; the parameters of the proposed programs have been prepared to comply with ARS §49-474.05.

9.6.2 Probable Cost And Benefit To Private Persons And Consumers

All proposed changes to Rule 316 are designed to reduce particulate matter emissions with the ultimate goal of protecting the public health and welfare by attaining PM₁₀ and PM_{2.5} National Ambient Air Quality Standards (NAAQS) throughout Maricopa County. A detailed description of the benefits for the public at large are excerpted from a cost analysis conducted by ADEQ (2004) and is provided below.

Improvement in air quality will generate cost-saving benefits by avoiding adverse-health effects, such as emergency room visits, hospital admissions, acute pediatric bronchitis, chronic adult bronchitis, acute respiratory symptom days, and even premature death. Potential benefits arising from a reduction in particulate matter and other pollutants emitted into the atmosphere can be inferred from data associated with the reduction of any airborne particulate matter (PM).

Some of health effects of human exposure to PM can be quantified while others cannot. Quantified adverse-health effects include: mortality, bronchitis (chronic and acute), new asthma cases, hospital admissions (respiratory and cardiovascular), emergency room visits for asthma, lower and upper respiratory illness, shortness of breath, respiratory symptoms, minor restricted activity days, days of work loss, moderate or worse asthma status of asthmatics. Unquantifiable adverse-health effects include: neonatal mortality, changes in pulmonary function, chronic respiratory diseases (other than chronic bronchitis), morphological changes, altered host defense mechanisms, cancer, and non-asthma respiratory emergency room visits (U.S. EPA, 1999a).

Epidemiological evidence shows that particulates have negative health impacts in a variety of ways, including: increased mortality and morbidity; more frequent hospital admissions, emergency room and clinician visits; increased need and demand for medication; and lost time from work and school. There is also increasing evidence that ambient air pollution can precipitate acute cardiac episodes, such as angina pectoris, cardiac arrhythmia, and myocardial infarction, although the majority of PM-related deaths are attributed to cardiovascular disease (The U.S. EPA's PM Health Effects Research Center Program, prepared by PM Centers Program staff, January 2002).

New evidence also links exposure to ambient PM concentrations to airway inflammation that in turn produces systemic effects, such as acute phase response with increased blood viscosity and coagulability, as well as increased risk of

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myocardial infraction in patients with coronary artery disease. Chronic effects of repeated airway inflammation may also cause airway remodeling, leading to irreversible lung disease. Individuals with asthma and chronic obstructive pulmonary disease may be at even higher risk from repeated exposure to particulates, according to the U.S. EPA's PM Health Effects Research Center Program.

The Health Effects Institute confirmed the existence of a link between particulate matter and human disease and death (premature mortality). The data revealed that long-term average mortality rates, even after accounting for the effects of other health effects, were 17-26% higher in cities with higher levels of airborne PM (Health Effects of Particulate Air Pollution: What Does The Science Say Hearing before the Committee on Science, House of Representatives, 107th Congress of the U.S., second session, May 8, 2002). Data further reveal that every 10-microgram increase in fine particulates per cubic meter produces a 6% increase in the risk of death by cardiopulmonary disease, and an 8% increase for lung cancer. Even very low concentrations of PM can increase the risk of early death, particularly in elderly populations with preexisting cardiopulmonary disease (STAPPA/ALAPCO, 1996).

In 2002 alone, chronic obstructive pulmonary disease cost the U.S. more than \$32 million, a sum not including costs attributable to asthma (American Lung Association, 2003). In Arizona, deaths attributable to asthma have equaled or exceeded national rates from 1991-1998. In 1998, some 316,200 Arizonans suffered breathing discomfort or asthma related stress (ADHS, 2002).

The MCAQD expects that a reduction in PM potentially will create commensurate cost-saving benefits to the general public by contributing towards reducing these emissions-related health problems. The proposed Maricopa County rulemaking will help improve the general quality of life for the citizens of Maricopa County, particularly those residing near sources that have reduced PM emissions and other air pollutants associated with the manufacturing processes.

Health benefits can be expressed as avoided cases of PM related-health effects and assigned a dollar value. EPA used an average estimate of value for each adverse-health effect of criteria air pollutants. Table 1 contains valuation estimates from the literature reported in dollars per case reduced. For example, the table shows a value of \$401,000 (in 2006 dollars) per case of chronic bronchitis avoided.

Table 1. Monetized Adverse-Health Effects Avoided From Exposure to PM

Adverse Health Effect *	Per Case Valuation (1990 dollars)	Per Case Valuation (2006 dollars)
Mortality	\$4,800,000	\$7,403,800
Chronic bronchitis	\$260,000	\$401,000
Hospital admissions for respiratory conditions	\$6,900	\$10,640
Hospital admissions for cardiovascular conditions	\$9,500	\$14,650
Emergency room visits for asthma	\$194	\$299
Acute Bronchitis	\$45	\$69
Asthma attack	\$32	\$49
Moderate or worse asthma day	\$32	\$49
Acute respiratory symptom	\$18	\$28
Upper respiratory symptom	\$19	\$29
Lower respiratory symptom	\$12	\$19
Shortness of breath, chest tightness, or wheeze	\$5	\$8
Work loss day	\$83	\$128
Mild restricted activity day	\$38	\$59

* An individual's health status and age prior to exposure impacts his/her susceptibility. At risk persons include those who have suffered a stroke or have cardiovascular disease. Some age cohorts are more susceptible to air pollution than others, i.e., children and elderly.

Source: Derived from U.S. EPA, 1999b. According to EPA, cost values of these illnesses tend to underestimate the true value of avoiding these adverse-health effects. Mean estimates of willingness-to-pay (WTP) were used to derive values, unless WTP values were not available, in which case, the cost of treating or mitigating the effects was used. The value of an avoided asthma attack, for example, would be a person's WTP to avoid that symptom.

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Mortality in Table 1 actually refers to statistical deaths, or inferred deaths due to premature mortality. A small decline in the risk for premature death will have a certain monetary value for individuals, and as such, they will be willing to pay a certain amount to avoid premature death. For instance, if PM emissions are reduced so that the mortality risk on the exposed population is decreased by one in one-hundred thousand, then among 100,000 persons, one less person will be expected to die prematurely. If the average willingness-to-pay (WTP) per person for such a risk reduction were \$75, the implied value of the statistical premature death avoided would be \$7.5 million.

9.7 Probable Effect On County and State Revenues

If Arizona is unable to submit a plan that demonstrates a Five Percent per year reduction and demonstrates attainment at the monitors based on implemented control measures such as this rule, EPA will be required to make a nondiscretionary finding that Arizona has failed to submit and approvable plan. If the County and Arizona fail to correct the identified deficiencies within the timeframe specified in the notice, the sanctions under § 179 of the Clean Air Act (CAA) will be imposed. Sanctions include loss of highway funds and stricter emission offset requirements for major sources. In addition, under § 110(c) of the CAA, EPA would then need to promulgate a Federal Implementation Plan no later than 24 months after the date of publication of the notice.

Some of the proposed rule changes would result in increased fee revenue to the MCAQD. The MCAQD anticipates revising its fee schedule (under a separate rulemaking) in order to recoup the costs of designing, implementing, and administering new programs contained within the present rulemaking. A list of the proposed programs, along with estimates of proposed user fees and overall revenue projections, is as follows:

Program	Est'd Users	Fee/User	Estimated Annual Revenue
Basic Dust Control Training Class	10,336	\$25	\$258,400
Comprehensive Dust Control Training Class	1,994	\$50	\$99,700

No other significant impact on state or County revenues from the present rulemaking is anticipated.

9.8 Alternative Methods Considered To Achieve The Purpose Of The Proposed Rulemaking

Rule 316, §§309.2 and 310: Basic and comprehensive dust control training classes: No alternatives were considered; the parameters of the proposed programs have been prepared to comply with ARS §49-474.05.

9.9 Data Availability And Limitations Of Assumptions

The present draft of this economic impact statement was developed in accordance with ARS §41-1055 to assess the potential economic impacts of the proposed changes to Rule 316. Sources of data and any assumptions used to develop these estimates have been included in the discussion of these analyses; and where data are lacking or uncertain, this has been noted wherever possible. The MCAQD welcomes all interested parties to provide additional relevant information and documentation on the anticipated costs and benefits resulting from compliance with the proposed rule(s).

10. Name and address of department personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:

Name: Johanna M. Kuspert or Jo Crumbaker
 Maricopa County Air Quality Department

Address: 1001 N. Central Ave., Suite 595
 Phoenix, AZ 85004

Telephone: (602) 506-6710 or (602) 506-6705

Fax: (602) 506-6179

E-mail: jkuspert@mail.maricopa.gov or jcrumbak@mail.maricopa.gov

11. The time, place and nature of the proceedings for the amendment of the rule:

Written comments will be accepted if received between the date of this publication and December 11, 2007, 5:00 p.m. Written comments may be mailed or hand delivered to the Maricopa County Air Quality Department (see item 4 above). Written comments received during the comment period will be considered formal comments to the proposed rules and will be responded to in the Notice of Final Rulemaking.

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An oral proceeding will be held on December 10, 2007 at 2:30 pm at the Maricopa County Flood Control District, 2801 West Durango, Operations Building. All comments made at this oral proceeding will be considered formal comments and will be recorded and transcribed. All formal comments will be addressed in the Notice of Final Rulemaking.

12. Any other matters prescribed by the statute that are applicable to the specific agency or to any specific rule or class of rules:
Not applicable

13. Incorporations by reference and their location in the rules:

<u>Incorporation By Reference</u>	<u>Location</u>
EPA Method 9	Rule 316, Section 309.5
EPA Reference Methods 1 - 5	Rule 316, Section 502.1
EPA Reference Method 203B	Rule 316, Section 502.2
South Coast Air Quality Management	Rule 316, Section 506
Rule 1186 Certification Standards	
Appendix C-Fugitive Dust Test Methods	Rule 316, Section 301.1(e)
	Rule 316, Section 306.1
	Rule 316, Section 306.3(c)(1)
	Rule 316, Section 306.3(c)(2)
	Rule 316, Section 306.3(c)(3)
	Rule 316, Section 306.4
	Rule 316, Section 306.5(b)
	Rule 316, Section 503
	Rule 316, Section 505
ASTM Method D2216-05	Rule 316, Section 504.1
ASTM Method D1557-02e1	Rule 316, Section 504.2

14. The full text of the rule follows:

**REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 316
NONMETALLIC MINERAL PROCESSING
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Adopted 07/06/93

Revised 04/21/99

Revised 06/08/05

**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS
REGULATION III - CONTROL OF AIR CONTAMINANTS
RULE 316
NONMETALLIC MINERAL PROCESSING**

SECTION 100 - GENERAL

- 101 **PURPOSE:** To limit the emission of particulate matter into the ambient air from any nonmetallic mineral processing plant and/or rock product processing plant.
- 102 **APPLICABILITY:** The provisions of this rule shall apply to any commercial and/or industrial nonmetallic mineral processing plant and/or rock product processing plant. Compliance with the provisions of this rule shall not relieve any person subject to the requirements of this rule from complying with any other federally enforceable New Source Performance Standards. In such case, the more stringent standard shall apply.

SECTION 200 - DEFINITIONS: See Rule 100 (General Provisions And Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule. For the purpose of this rule, the following definitions shall apply:

- 201 **AFFECTED OPERATION** - An operation that processes nonmetallic minerals or that is related to such processing and process sources including, but not limited to, excavating, crushers, grinding mills, screening equipment, conveying systems, elevators, transfer points, bagging operations, storage bins, enclosed truck and railcar loading stations, and truck dumping.
- 202 **AGGREGATE TRUCK** - Any truck with an open top used to transport the products of nonmetallic mineral processing plants and/or rock product processing plants.
- 203 **APPROVED EMISSION CONTROL SYSTEM** - A system for reducing particulate emissions, consisting of collection and/or control devices which are approved in writing by the Control Officer and are designed and operated in accordance with good engineering practice.
- 204 **AREA ACCESSIBLE TO THE PUBLIC** - Any retail parking lot or public roadway that is open to public travel primarily for the purposes unrelated to the dust generating operation.
- 205 **ASPHALTIC CONCRETE PLANT/ASPHALT PLANT** - Any facility used to manufacture asphaltic concrete by mixing graded aggregate and asphaltic cements.

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- 206 **BAGGING OPERATION** - The mechanical process by which bags are filled with nonmetallic minerals.
- 207 **BATCH TRUCK** – Any truck that loads and transports products produced by batch.
- 208 **BELT CONVEYOR** - A conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.
- 209 **BERMS AND GUARD RAILS** - A pile or mound of material along an elevated roadway capable of moderating or limiting the force of a vehicle in order to impede the vehicle's passage over the bank of the roadway.
- 210 **BULK MATERIAL** - Any material including, but not limited to, earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than two inches in length or diameter (i.e., aggregate base course (ABC)), dirt, mud, demolition debris, cotton, trash, cinders, pumice, saw dust, feeds, grains, fertilizers, fluff (from shredders), and dry concrete, that is capable of producing fugitive dust.
- 211 **COHESIVE HARD SURFACE** – Any material including, but not limited to, pavement, recycled asphalt mixed with a binder, or a dust suppressant other than water applied and maintained as a roadway surface.
- 212 **CONCRETE PLANT** - Any facility used to manufacture concrete by mixing water, aggregate, and cement.
- 213 **CONVEYING SYSTEM** - A device for transporting materials from one piece of equipment or location to another location within a facility. Conveying systems include, but are not limited to, feeders, belt conveyers, bucket elevators and pressure control systems.
- 214 **CRUSHER** - A machine used to crush any nonmetallic minerals including, but not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.
- 215 **DISTURBED SURFACE AREA** - A portion of the earth's surface (or material placed thereupon) which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, thereby increasing the potential for the emission of fugitive dust.
- 216 **DRY MIX CONCRETE PLANT** - Any facility used to manufacture a mixture of aggregate and cements without the addition of water.
- 217 **DUST GENERATING OPERATION** - Any activity capable of generating fugitive dust including, but not limited to, land clearing, earthmoving, weed abatement by discing or blading, excavating, construction, demolition, bulk material handling, storage and/or transporting operations, vehicle use and movement, the operation of any outdoor equipment, or unpaved parking lots. For the purpose of this rule, landscape maintenance and playing on or maintaining a field used for nonmotorized sports shall not be considered a dust generating operation. However, landscape maintenance shall not include grading, trenching, or any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.
- 218 **DUST SUPPRESSANT** - Water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer, or any other dust palliative, which is not prohibited for ground surface application by the EPA or the Arizona Department of Environmental Quality (ADEQ), or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.
- 219 **ENCLOSED TRUCK OR RAILCAR LOADING STATION** - That portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.
- 220 **END OF WORK DAY** – The end of a working period that may include one or more work shifts but not later than 8 pm.
- 221 **FABRIC FILTER BAGHOUSE** - Tube-shaped filter bags - long small-diameter fabric tubes referred to as ‘bags’ arranged in parallel flow paths and designed to separate particles and flue gas.
- 222 **FREEBOARD** - The vertical distance between the top edge of a cargo container area and the highest point at which the bulk material contacts the sides, front, and back of a cargo container area.
- 223 **FUGITIVE DUST CONTROL MEASURE** - A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.
- 224 **FUGITIVE DUST CONTROL TECHNICIAN** - A person with the authority to expeditiously employ sufficient fugitive dust control measures to ensure compliance with Rule 316 of these rules at an active operation.
- 225 **FUGITIVE DUST EMISSION** - Particulate matter not collected by a capture system that is entrained in the ambient air and is caused from human and/or natural activities.
- 226 **GRINDING MILL** - A machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.
- 227 **HAUL/ACCESS ROAD** – Any on-site unpaved road that is used by haul trucks to carry materials from the quarry to different locations within the facility. For the purpose of this definition, haul/access roads are not in permanent areas of a facility.
- 228 **HAUL TRUCK** - Any fully or partially open-bodied self-propelled vehicle including any non-motorized attachments, such as but not limited to, trailers or other conveyances that are connected to or propelled by the actual motorized portion of the vehicle used for transporting bulk materials.

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- 229 INFREQUENT OPERATIONS** – Operations that have State mine identification, approved reclamation plans and bonding as required by State Mining And Reclamation Act of 1975, and only operate on an average of 52 days per year over the past three years from June 8, 2005.
- 230 MATERIAL DELIVERY TRUCK** – Any truck that loads and transports product to customers.
- 231 MIXER TRUCK** – Any truck that mixes cement and other ingredients in a drum to produce concrete.
- 232 MOTOR VEHICLE** - A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.
- 233 NEW FACILITY** - A facility subject to this rule that has not been operated by such facility prior to June 8, 2005.
- 234 NONMETALLIC MINERAL** - Any of the following minerals or any mixture of which the majority is any of the following minerals:
- 234.1** Crushed and broken stone, including limestone, dolomite, granite, rhyolite, traprock, sandstone, quartz, quartzite, marl, marble, slate, shale, oil shale, and shell.
 - 234.2** Sand and gravel.
 - 234.3** Clay including kaolin, fireclay, bentonite, fuller's earth, ball clay, and common clay.
 - 234.4** Rock salt.
 - 234.5** Gypsum.
 - 234.6** Sodium compounds including sodium carbonate, sodium chloride, and sodium sulfate.
 - 234.7** Pumice.
 - 234.8** Gilsonite.
 - 234.9** Talc and pyrophyllite.
 - 234.10** Boron including borax, kernite, and colemanite.
 - 234.11** Barite.
 - 234.12** Fluorspar.
 - 234.13** Feldspar.
 - 234.14** Diatomite.
 - 234.15** Perlite.
 - 234.16** Vermiculite.
 - 234.17** Mica.
 - 234.18** Kyanite including andalusite, sillimanite, topaz, and dumortierite.
 - 234.19** Coal.
- 235 NONMETALLIC MINERAL PROCESSING PLANT** - Any facility utilizing any combination of equipment or machinery that is used to mine, excavate, separate, combine, crush, or grind any nonmetallic mineral including, but not limited to, lime plants, coal fired power plants, steel mills, asphalt plants, concrete plants, Portland cement plants, raw material storage and distribution, and sand and gravel plants. Rock Product Processing Plants are included in this definition.
- 236 OPEN STORAGE PILE** - Any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and ~~covers~~ a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ~~ASTM Method C136-01~~ ASTM Method C136-06 or other equivalent method approved in writing by the Control Officer and the Administrator of the Environmental Protection Agency (EPA), that the silt content is less than 5%. For the purpose of this rule, the definition of open storage pile does not include berms and guard rails that are installed to comply with 30 Code Of Federal Regulations (CFR) 56.93000.
- 237 OVERBURDEN OPERATION** – An operation that removes and/or strips soil, rock, or other materials that lie above a natural nonmetallic mineral deposit and/or in-between a natural nonmetallic mineral deposit.
- 238 PARTICULATE MATTER EMISSIONS** - Any and all finely divided solid or liquid materials other than uncombined water released to the ambient air as measured by the applicable state and federal test methods.
- 239 PAVE** - To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, rubberized asphalt, or recycled asphalt mixed with a binder).
- 240 PERMANENT AREAS OF A FACILITY** - Areas that remain in-place for 180 days or more in 12 consecutive months. Permanent areas of a facility include the following areas: entrances, exits, parking areas, office areas, warehouse areas, maintenance areas (not including maintenance areas that are in the quarry or pit), concrete plant areas, asphaltic plant areas, and roads leading to and from such areas.
- 240241 PORTLAND CEMENT PLANT** - Any facility that manufactures Portland Cement using either a wet or dry process.

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- 241242 PRESSURE CONTROL SYSTEM** - System in which loads are moved in the proper sequence, at the correct time, and at the desired speed through use of valves that control the direction of air flow, regulate actuator speed, and respond to changes in air pressure.
- 242243 PROCESS** - One or more operations including those using equipment and technology in the production of goods or services or the control of by-products or waste.
- 243244 PROCESS SOURCE** - The last operation of a process or a distinctly separate process which produces an air contaminant and which is not a pollution abatement operation.
- 244245 PRODUCTION WORK SHIFT** - An eight hour operating period based on the 24-hour operating schedule.
- 245246 PUBLIC ROADWAYS** - Any roadways that are open to public travel.
- 246247 RETURNED PRODUCTS** - Left-over concrete or asphalt products that were not used at a job site and were returned to the facility.
- 247248 RUMBLE GRATE** - A system where the vehicle is vibrated while traveling over grates with the purpose of removing dust and other debris.
- 248249 SCREENING OPERATION** - A device that separates material according to its size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).
- 249250 SILO** - An elevated storage container with or without a top that releases material thru the bottom.
- 25051 SILT** - Any aggregate material with a particle size less than 75 micrometers in diameter, which passes through a No. 200 Sieve.
- 251252 SPILLAGE** - Any quantity of nonmetallic minerals/materials that spill while being processed or after having been processed by an affected operation, where such spilled nonmetallic minerals/ materials can generate or cause fugitive dust emissions.
- 252253 STACK EMISSIONS** - The particulate matter emissions that are released to the atmosphere from a capture system through a building vent, stack or other point source discharge.
- 253254 STAGING AREA** - A place where aggregate trucks and mixer trucks temporarily queue for their loading or unloading.
- 254255 TEMPORARY FACILITY** - A facility that occupies a designated site for not more than 180 days in a calendar year.
- 255256 TRACKOUT** - Any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public.
- 256257 TRACKOUT CONTROL DEVICE** - A gravel pad, grizzly, wheel washer, rumble grate, paved area, truck washer, or other equivalent trackout control device located at the point of intersection of an unpaved area and a paved area accessible to the public that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of aggregate trucks, haul trucks, and/or motor vehicles that traverse a facility.
- 257258 TRANSFER POINT** - A point in a conveying operation where nonmetallic mineral is transferred from or to a belt conveyor except for transfer to a stockpile.
- 258259 TRUCK DUMPING** - The unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include, but are not limited to, trucks, front end loaders, skip hoists, and railcars.
- 259260 TRUCK WASHER** - A system that is used to wash the entire surface and the tires of a truck.
- 260261 UNPAVED ROAD** - Any roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by Federal, State, county, municipal, or governmental or quasigovernmental agencies. Private unpaved roads are all other unpaved roadways not defined as public. ~~Unpaved internal roads are private unpaved roads within the facility's property boundary.~~
- 261262 VENT** - An opening through which there is mechanically or naturally induced air flow for the purpose of exhausting air carrying particulate matter.
- 262263 WHEEL WASHER** - A system that is capable of washing the entire circumference of each wheel of the vehicle.
- 263264 WIND EVENT** - When the 60-minute average wind speed is greater than 25 miles per hour.

SECTION 300 - STANDARDS

- 301 NONMETALLIC MINERAL PROCESSING PLANTS - PROCESS EMISSION LIMITATIONS AND CONTROLS: CRUSHING AND SCREENING - PROCESS EMISSION LIMITATIONS AND CONTROLS:**
- 301.1 Process Emission Limitations:** The owner and/or operator of a nonmetallic mineral processing plant shall not discharge or cause or allow to be discharged into the ambient air:

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- a. Stack emissions exceeding 7% opacity and containing more than 0.02 grains/dry standard cubic foot (gr/dscf) (50 mg/dscm) of particulate matter. ~~Such stack emissions shall be vented to a properly sized fabric filter baghouse.~~
- b. Fugitive dust emissions exceeding 7% opacity from any transfer point on a conveying system.
- c. Fugitive dust emissions exceeding 15% opacity from any crusher.
- d. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping. ~~directly into any screening operation, feed hopper, or crusher.~~
- e. Fugitive dust emissions exceeding 20% opacity from truck dumping directly into any screening operation, feed hopper, or crusher. Opacity observations to determine compliance with this section of this rule shall be conducted in accordance with the techniques specified in Appendix C-Fugitive Dust Test Methods of these rules.

301.2 Controls: ~~For crushing and screening facilities, the~~ The owner and/or operator of a nonmetallic mineral processing plant shall implement all of the following process controls described in Section 301.2(a), Section 301.2(b), and Section 301.2(c) of this rule or shall implement process controls described in Section 301.2(a) and Section 301.2(d) of this rule:

- a. Enclose sides of all shaker screens.
- b. Permanently mount watering systems (e.g., spray bars or an equivalent control) on: the points listed below for crushers, shaker screens, and material transfer points.
 - (1) Inlet and outlet of all crushers;
 - (2) Outlet of all shaker screens; and
 - (3) Outlet of all material transfer points, excluding wet plants.
- c. Operate watering systems (e.g., spray bars or an equivalent control) on the points listed in Section 301.2(b) of this rule for crushers, shaker screens, and material transfer points, excluding wet plants, to continuously maintain a 4% minimum moisture content.
 - (1) The watering systems shall be maintained in good operating condition, as verified by daily inspections.
 - (2) The owner and/or operator shall investigate and correct any problems before continuing and/or resuming operations.
 - (3) The owner and/or operator shall conduct soil moisture tests as follows:
 - (a) If the owner and/or operator is required to have in place a Fugitive Dust Control Technician according to Section 309 of this rule, then soil moisture tests shall be conducted twice daily in accordance with the test methods described in Section 502 of this rule.
 - (b) If the owner and/or operator is not required to have in place a Fugitive Dust Control Technician according to Section 309 of this rule, then soil moisture tests shall be conducted daily in accordance with the test methods described in Section 502 of this rule.
 - (c) If the owner and/or operator demonstrates that the 4% minimum moisture content is maintained for a minimum of four weeks, then soil moisture tests may be conducted weekly in accordance with the test methods described in Section 502 of this rule.
 - (d) If the owner and/or operator fails to comply with the opacity limitations described in Section 301.1, Section 306.1, or Section 306.2 of this rule and/or if two consecutive soil moisture tests are below 4%, then the owner and/or operator shall conduct soil moisture tests in accordance with Section 301.2(c)(3)(a) or Section 301.2(c)(3)(b) of this rule, as applicable.
 - (e) If the owner and/or operator of a facility complies with both of the following requirements, then the number of sampling points identified in Section 502.3(c)(1) through (3) of this rule may be reduced:
 - (i) A soil moisture test is conducted in accordance with the test methods described in Section 502 of this rule at the primary crusher, which indicates that at least a 5% minimum moisture content is maintained; and
 - (ii) A demonstration that complies with Section 502.3(d) of this rule is submitted to and approved by the Control Officer and is complied with in accordance with Section 502.3(d) of this rule.
 - (4) The owner and/or operator may request in a permit application, with explanation, an alternative plan that justifies a minimum moisture content other than 4% and that justifies conducting fewer soil moisture tests as are required. In the request, the owner and/or operator shall submit to the Control Officer documentation regarding a minimum moisture content other than 4%, including, but not limited to, economics, emissions rates, water availability, and technical feasibility. In

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addition, the owner and/or operator shall demonstrate that the proposed alternative compliance demonstration plan will be equivalent in determining compliance with the soil moisture content requirements. Prior approval from the Control Officer and the Administrator shall be received before implementing the plan.

d. Enclose and exhaust the regulated process to a properly sized fabric filter baghouse.

302 ASPHALTIC CONCRETE PLANTS - PROCESS EMISSION LIMITATIONS AND CONTROLS:

302.1 Process Emission Limitations: The owner and/or operator of an asphaltic concrete plant shall not discharge or cause or allow to be discharged into the ambient air:

- a. For non-rubberized asphaltic concrete plants, stack emissions exceeding 5% opacity and containing more than 0.04 gr/dscf (90 mg mg/dscm) of particulate matter ~~over a 6 minute period.~~
- b. For rubberized asphaltic concrete plants (when producing rubberized asphalt only), stack emissions exceeding 20% opacity and containing more than 0.04 gr/dscf (90 mg/dscm) of particulate matter ~~over a 6 minute period.~~
- c. From all cement, lime, and/or fly ash storage silo(s), fugitive dust emissions exceeding 20% opacity. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping.

302.2 Controls: The owner and/or operator of an asphaltic concrete plant shall implement all of the following process controls: shall, from all drum dryers, control and vent exhaust to a properly sized fabric filter baghouse.

- a. ~~On all cement, lime, and/or fly ash storage silo(s), install an operational overflow warning system/device. The system/device shall be designed to alert operator(s) to stop the loading operation when the cement, lime, and/or fly ash storage silo(s) are reaching a capacity that could adversely impact pollution abatement equipment.~~
- b. ~~On existing cement, lime, and/or fly ash storage silo(s), install a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6 minute period.~~
- e. ~~On new cement, lime, and/or fly ash storage silo(s), install a properly sized fabric filter baghouse or equivalent device designed to meet a maximum outlet grain loading of 0.01 gr/dscf, with an opacity limit of not greater than 5% over a 6 minute period.~~
- d. ~~From all drum dryers, control and vent exhaust to a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6 minute period.~~

303 CONCRETE PLANTS AND/OR BAGGING OPERATIONS - PROCESS EMISSION LIMITATIONS AND CONTROLS: RAW MATERIAL STORAGE AND DISTRIBUTION, CONCRETE PLANTS, AND/OR BAGGING OPERATIONS - PROCESS EMISSION LIMITATIONS AND CONTROLS:

303.1 Process Emission Limitations: The owner and/or operator of a concrete plant and/or bagging operation shall not discharge or cause or allow to be discharged into the ambient air:

- a. Stack emissions exceeding ~~7%~~ 5% opacity.
- b. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping. ~~directly into any screening operation, feed hopper, or crusher.~~
- e. ~~Fugitive dust emissions exceeding 20% opacity from truck dumping directly into any screening operation, feed hopper, or crusher.~~

303.2 Controls: The owner and/or operator of a concrete plant and/or bagging operation shall implement the following process controls:

- a. On all cement, lime, and/or fly-ash storage silo(s), install an operational overflow warning system/device. The system/device shall be designed to alert operator(s) to stop the loading operation when the cement, lime, and/or fly-ash storage silo(s) are reaching a capacity that could adversely impact pollution abatement equipment.
- b. ~~On existing cement, lime, and/or fly ash storage silo(s), install a properly sized fabric filter baghouse, with an opacity limit of not greater than 5% over a 6 minute period.~~
- e.b. On new cement, lime, and/or fly-ash storage silos, install a properly sized fabric filter baghouse or equivalent device designed to meet a maximum outlet grain loading of 0.01 gr/dscf.
- d.c. On dry mix concrete plant loading stations/truck mixed product, implement one of the following process controls:
 - (1) Install a rubber fill tube;
 - (2) Install a water spray;
 - (3) Install a properly sized fabric filter baghouse or delivery system;
 - (4) Enclose mixer loading stations such that no visible emissions occur; or

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- (5) Conduct mixer loading stations in an enclosed process building such that no visible emissions from the building occur during the mixing activities.

~~e.d.~~ On cement silo filling processing/loading operations controls, install a pressure control system designed to shut-off cement silo filling processes/loading operations, if pressure from delivery truck is excessive, as defined in O&M Plan.

304 OTHER ASSOCIATED OPERATIONS: All other affected operations or process sources not specifically listed in Sections 301, 302, or 303 of this rule associated with the processing of nonmetallic minerals, all other fugitive dust emission limitations not specifically listed in Section 306 of this rule, all other fugitive dust control measures not specifically listed in Section 307 of this rule, and all overburden operations shall, at a minimum, meet the provisions of Rule 310 of these rules.

305 AIR POLLUTION CONTROL EQUIPMENT AND APPROVED EMISSION CONTROL SYSTEM (ECS): An owner and/or operator of a facility shall provide, properly install and maintain in calibration, in good working order, and in operation, at all times air pollution control equipment required by this rule. When selecting air pollution control equipment required by this rule, the owner and/or operator of a facility may consider the site-specific and/or material-specific conditions and logistics of a facility. When doing so, some air pollution control equipment may be more reasonable to implement than others. Regardless, any air pollution control equipment that is installed must achieve the applicable standard(s) required by this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule. The owner and/or operator of a facility may submit a request to the Control Officer and the Administrator for the use of alternative air pollution control equipment. The request shall include the proposed alternative air pollution control equipment, the air pollution control equipment that the alternative would replace, and a detailed statement or report demonstrating that the air pollution control equipment would result in equivalent or better emission control than the equipment prescribed in this rule. Nothing in this rule shall be construed to prevent an owner and/or operator of a facility from making such demonstration. Following a decision by the Control Officer and the Administrator to grant the petition, the facility shall incorporate the alternative air pollution control equipment in any required Operation And Maintenance (O&M) Plan.

305.1 Operation And Maintenance (O&M) Plan Requirements For ECS:

- a. An owner and/or operator of a facility shall provide and maintain, readily available on-site at all times, (an) O&M Plan(s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this rule or to an air pollution control permit.
- b. The owner and/or operator of a facility shall submit to the Control Officer for approval the O&M Plan(s) for each ECS and for each ECS monitoring device that is used pursuant to this rule.
- c. The owner and/or operator of a facility shall comply with all the identified actions and schedules provided in each O&M Plan.

305.2 Operation And Maintenance (O&M) Plan Requirements For Dust Control Measures:

- a. An owner and/or operator of a facility shall provide and maintain, readily available on-site at all times, (an) O&M Plan(s) for equipment associated with any process fugitive emissions and fugitive dust control measures (i.e., gravel pads, wheel washers, truck washers, rumble grates, watering systems, and street sweepers) that are implemented to comply with this rule or an air pollution control permit.
- b. The owner and/or operator of a facility shall comply with all the identified actions and schedules provided in each O&M Plan.

~~305.2~~**305.3 Providing And Maintaining ECS Monitoring Devices:** An owner and/or operator of a facility operating an ECS pursuant to this rule shall install, maintain, and calibrate monitoring devices described in the O&M Plan(s). The monitoring devices shall measure pressures, rates of flow, and/or other operating conditions necessary to determine if the control devices are functioning properly.

~~305.3~~**305.4 O&M Plan Responsibility:** An owner and/or operator of a facility that is required to have an O&M Plan pursuant to Section 305.1 of this rule must fully comply with all O&M Plans that the owner and/or operator has submitted for approval, even if such O&M Plans have not yet been approved, unless notified in writing by the Control Officer.

306 FUGITIVE DUST EMISSION LIMITATIONS:

306.1 20% Opacity Limitation: ~~The~~ For emissions that are not already regulated by an opacity limit, the owner and/or operator of a facility shall not discharge or cause or allow to be discharged into the ambient air fugitive dust emissions exceeding 20% opacity, in accordance with the test methods described in ~~Section 502~~ Section 503 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules.

306.2 Visible Emission Limitation Beyond Property Line: An owner and/or operator of a facility shall not cause or allow fugitive dust emissions from any active operation, open storage pile, or disturbed surface

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area associated with such facility such that the presence of such fugitive dust emissions remain visible in the atmosphere beyond the property line of such facility.

- 306.3 Wind Event:** The fugitive dust emission limitations described in Section 306.1 ~~and Section 306.2~~ of this rule shall not apply during a wind event, if the owner and/or operator of a facility meets the following conditions:
- a. Has implemented the fugitive dust control measures described in Section 307 of this rule, as applicable;
 - b. Has compiled and retained records, in accordance with Section 501.4 of this rule, and has documented by records the occurrence of a wind event on the day(s) in question. The occurrence of a wind event must be determined by the nearest ~~Maricopa County Environmental Services Department Air Quality Division~~ Maricopa County Air Quality Department monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked; and
 - c. Has implemented the following high wind fugitive dust control measures, as applicable:
 - (1) For an active operation, implement one of the following fugitive dust control measures, in accordance with the test methods described in Section 503 and Section 504 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules:
 - (a) Cease active operation that may contribute to an exceedance of the fugitive dust emission limitations described in Section 306.1 ~~and Section 306.2~~ of this rule for the duration of the wind event and, if active operation is ceased for the remainder of the work day, stabilize the area; or
 - (b) Maintain a visible crust by applying water Before and during active operations, apply water or other suitable dust suppressant other than water or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in Section 503 and Section 504 of this rule. to keep the soil visibly moist.
 - (2) For an inactive open storage pile, implement one of the following fugitive dust control measures, in accordance with the test methods described in Section 503 and Section 504 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules:
 - (a) Maintain a visible soil crust by applying water or other suitable dust suppressant other than water or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in ~~Section 503 and Section 504~~ Section 505 of this rule.
 - (b) Cover open storage pile with tarps, plastic, or other material such that wind will not remove the covering, if open storage pile is less than eight feet high.
 - (3) For ~~a an~~ an inactive disturbed surface area, implement one of the following fugitive dust control measures, in accordance with the test methods described in Section 503 and Section 504 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules:
 - (a) Uniformly apply and maintain surface gravel or a dust suppressant other than water; or
 - (b) Maintain a visible soil crust by applying water or other suitable dust suppressant other than water or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in ~~Section 503 and Section 504~~ Section 505 of this rule.
- 306.4 Silt Loading And Silt Content Standards For Unpaved Internal Roads And Unpaved Parking And Staging Areas:** From unpaved ~~internal~~ roads and unpaved parking and staging areas, the owner and/or operator of a facility shall not discharge or allow to be discharged into the ambient air fugitive dust emissions exceeding 20% opacity, in accordance with the test methods described in Section 502 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules, and one of the following:
- a. For unpaved roads, silt loading equal to or greater than 0.33 oz/ft²; or silt content exceeding 6%.
 - b. ~~Silt content exceeding 6%.~~ For unpaved parking and staging areas, silt loading equal to or greater than 0.33 oz/ft² or silt content exceeding 8%.
- 306.5 Stabilization Standards:**
- a. An owner and/or operator of a facility with an open area or a disturbed surface area on which no activity is occurring (including areas that are temporarily or permanently inactive) shall be considered in violation of this rule if ~~any open storage pile and material handling or surface soils where support equipment and vehicles operate in association with such facility~~ area is not maintained in a manner that meets at least one of the standards listed below, as applicable.
 - (1) Maintain a visible soil crust;

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- (2) Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;
 - (3) Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
 - (4) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;
 - (5) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;
 - (6) Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
 - (7) Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator. ~~of the Environmental Protection Agency (EPA).~~
- b. If no activity is occurring on an open storage pile and material handling or surface soils where support equipment and vehicles operate in association with such facility and if an open storage pile and material handling or surface soils where support equipment and vehicles operate in association with such facility contain more than one type of ~~disturbance~~ visibly distinguishable stabilization characteristics, soil, vegetation, or other characteristics, which are visibly distinguishable, ~~each representative surface shall be tested~~ the owner and/or operator shall test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, in accordance with the appropriate test methods described in ~~Section 503 and Section 504~~ Section 505 of this rule and in Appendix C-Fugitive Dust Test Methods of these rules. ~~and shall be included in or eliminated from the total size assessment of disturbed surface area(s) depending upon test method results.~~

307 FUGITIVE DUST CONTROL MEASURES: The owner and/or operator of a nonmetallic mineral processing plant and/or a rock product processing plant shall implement the fugitive dust control measures described in this section of this rule. When selecting a fugitive dust control measure(s), the owner and/or operator of a facility may consider the site-specific and/or material-specific conditions and logistics of a facility. When doing so, some fugitive dust control measures may be more reasonable to implement than others. Regardless, any fugitive dust control measure that is implemented must achieve the applicable standard(s) described in Section 306 of this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule. The owner and/or operator of a facility may submit a request to the Control Officer and the Administrator ~~Of The Environmental Protection Agency (EPA)~~ for the use of alternative control measure(s). The request shall include the proposed alternative control measure, the control measure that the alternative would replace, and a detailed statement or report demonstrating that the measure would result in equivalent or better emission control than the measures prescribed in this rule. Nothing in this rule shall be construed to prevent an owner and/or operator of a facility from making such demonstration. Following a decision by the Control Officer and the Administrator ~~of the EPA~~ to grant the petition, the facility shall incorporate the alternative control measure in any required Dust Control Plan. When engaged in the activities described in Section 301 and Section 307.1 through Section 307.9 of this rule, the owner and/or operator of a facility shall install, maintain, and use fugitive dust control measures as described in Section 307.1 through Section 307.9 of this rule, as applicable.

307.1 Open Storage Piles And Material Handling: The owner and/or operator of a facility shall implement all of the following fugitive dust control measures, as applicable. ~~in compliance with Section 306.1 and Section 306.5 of this rule.~~ For the purpose of this rule, open storage pile(s) and material handling does not include berms and guard rails that are installed to comply with 30 CFR 56.93000. However, such berms and guard rails shall be installed and maintained in compliance with Section 306.1, Section 306.2, and Section 306.5 of this rule.

- a. Prior to, and/or while conducting ~~stacking~~, loading, and unloading operations, implement one of the following fugitive dust control measures:
 - (1) Spray material with water, as necessary; or
 - (2) Spray material with a dust suppressant other than water, as necessary.
- b. When not conducting ~~stacking~~, loading, and unloading operations, implement one of the following fugitive dust control measures:
 - (1) Spray material with water, as necessary; ~~in compliance with Section 306.1 and Section 306.5 of this rule;~~

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- (2) Maintain a 1.5% or more soil moisture content of the open storage pile(s); ~~in compliance with Section 306.1 and Section 306.5 of this rule;~~
 - (3) Locate open storage pile(s) in a pit/in the bottom of a pit; ~~If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule;~~
 - (4) Arrange open storage pile(s) such that storage pile(s) of larger diameter products are on the perimeter and act as barriers to/for open storage pile(s) that could create fugitive dust emissions; ~~If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule;~~
 - (5) ~~Meet one of the stabilization standards in Section 306.5 of this rule; or~~
 - (6)(5) Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%; ~~or If implementing this fugitive dust control measure, the owner and/or operator of a facility shall also comply with the stabilization standards in Section 306.5 of this rule;~~
 - (7)(6) Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings.
- c. When installing new open storage pile(s) at an existing facility and/or when installing new open storage pile(s) at a new facility, the owner and/or operator shall implement all of the following fugitive dust control measures ~~in compliance with Section 306.1 and Section 306.5 of this rule~~, only if it is determined to be feasible on a case-by-case basis through the Dust Control Plan by assessing the amount of open land available at the property at the time the new open storage pile(s) are formed:
- (1) Install the open storage pile(s) at least 25 feet from the property line; and
 - (2) Limit the height of the open storage pile(s) to less than 45 feet.
- d. For existing open storage pile(s) and when installing open storage pile(s) for an existing facility or for a new facility, if such open storage pile(s) will be constructed over eight feet high and will not be covered, then the owner and/or operator shall install, use, and maintain a water truck or other method that is capable of completely wetting the surfaces of open storage pile(s). ~~in compliance with Section 306.1 and Section 306.5 of this rule.~~

307.2 Surface Stabilization Where Support Equipment And Vehicles Operate: The owner and/or operator of a facility shall stabilize surface soils where loaders, support equipment, and vehicles will operate by implementing one of the following fugitive dust control measures, in compliance with Section 306.4 and/or Section 306.5 of this rule, as applicable: implement one of the following fugitive dust control measures on areas other than the areas identified in Section 307.3 and Section 307.4 of this rule where loaders, support equipment, and vehicles operate.

- a. ~~Pre-water surface soils~~ Apply and maintain water;
- b. Apply and maintain a dust suppressant, other than water; or
- c. Apply a gravel pad, in compliance with ~~the~~ Section 307.6(b)(4) of this rule.

307.3 Haul/Access Roads That Are Not In Permanent Areas Of A Facility:

- a. The owner and/or operator of a facility shall implement one of the following fugitive dust control measures, as applicable, ~~in compliance with Section 306.4 of this rule~~, before engaging in the use of, or in the maintenance of, haul/access roads. Compliance with the provisions of this section of this rule shall not relieve any person subject to the requirements of this section of this rule from complying with any other federally enforceable requirements (i.e., a permit issued under Section 404 of the Clean Water Act).
 - (1) Install and maintain bumps, humps, or dips for speed control and apply water, as necessary;
 - (2) Limit vehicle speeds and apply water, as necessary;
 - (3) Pave;
 - (4) Apply and maintain a gravel pad in compliance with Section 307.6(b)(4) of this rule;
 - (5) Apply a dust suppressant, other than water; or
 - (6) Install and maintain a cohesive hard surface.
- b. For a new facility, if ~~implementing one it is determined that none~~ of the fugitive dust control measures described in Section 307.3(a) of this rule ~~is determined to be technically infeasible as obtained/approved in writing by the Control Officer and the Administrator of the Environmental Protection Agency (EPA) and as approved in the Dust Control Plan~~, can be technically and feasibly implemented, then the owner and/or operator of a new facility shall maintain a minimum distance of

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25 feet from the property line for haul/access roads associated with the new facility. Such determination shall be made and approved in writing by the Control Officer and the Administrator and shall be approved in the Dust Control Plan.

307.4 On-Site Traffic:

- a. The owner and/or operator of a facility shall require all batch trucks and material delivery trucks to remain on ~~internal roads with paved surfaces or cohesive hard surfaces. in the permanent areas of the facility /operation that include entrances, exits, warehouses and maintenance areas, office areas, concrete plant areas, asphaltic plant areas, and parking and staging areas, as approved in the Dust Control Plan.~~
- b. The owner and/or operator of a facility shall require all aggregate trucks to remain on ~~internal roads subject to Section 307.4(a) of this rule, paved surfaces or cohesive hard surfaces, except when entering and exiting driving on roads leading to and from aggregate loading areas/loading operations, as approved in the Dust Control Plan.~~
- c. The owner and/or operator of a facility shall require all batch trucks and material delivery trucks to enter and exit the facility/operation only through entrances that comply with the trackout requirements in ~~Section 307.5~~ Section 307.6 of this rule. ~~and that comply with Section 306.5 of this rule.~~
- d. The owner and/or operator of a facility shall pave or install a cohesive hard surface on permanent areas of a facility on which vehicles drive, as approved in the Dust Control Plan.

307.5 Off-Site Traffic: When hauling and/or transporting bulk material off-site, the owner and/or operator of a facility shall implement all of the following control measures:

- a. Load all haul trucks such that the freeboard is not less than three inches;
- b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- c. Cover haul trucks with a tarp or other suitable closure.

307.6 Trackout:

- a. **Rumble Grate And Wheel Washer:** The owner and/or operator of a new permanent facility and the owner and/or operator of an existing permanent facility with a minimum of 60 aggregate trucks, mixer trucks, and/or batch trucks exiting a facility on any day onto paved public roadways/paved areas accessible to the public shall install, maintain, and use a rumble grate and wheel washer, in accordance with all of the following conditions, as applicable. For the purpose of this rule, a vehicle wash and/or a cosmetic wash may be substituted for a wheel washer, provided such vehicle wash and/or cosmetic wash has at least 40 pounds per square inch (psi) water spray from the nozzle (owner and/or operator of the facility shall have a water pressure gauge available on-site to allow verification of such water pressure), meets the definition of wheel washer (i.e., is capable of washing the entire circumference of each wheel of the vehicle), is operated in such a way that visible deposits are removed from the entire circumference of each wheel of the vehicle exiting the wash, is installed, maintained, and used in accordance with criteria in Section 307.6(a)(1)-(5) of this rule, and is approved in the Dust Control Plan for the facility.

- (1) The owner and/or operator of a facility shall locate a rumble grate within 10 feet from a wheel washer. ~~The rumble grate and wheel washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks. The owner and/or operator of a facility may be allowed to install a rumble grate and wheel washer less than 30 feet prior to each exit, if the owner and/or operator of a facility can demonstrate to the Control Officer by September 30, 2005, that there is not adequate space to install a rumble grate and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout.~~

- (a) The rumble grate and wheel washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks.

- (b) The owner and/or operator of a facility may be allowed to install a rumble grate and wheel washer less than 30 feet prior to each exit if the owner and/or operator of a facility can demonstrate to the Control Officer that there is not adequate space to install a rumble grate and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout.

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- (c) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the rumble grate.
 - (2) The owner and/or operator of a facility shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks exit the facility via the rumble grate first and then the wheel washer.
 - (3) The owner and/or operator of a facility shall post a sign by the rumble grate and wheel washer to designate the speed limit as 5 miles per hour.
 - (4) The owner and/or operator of a facility shall pave the ~~internal~~ roads from the rumble grate and wheel washer to the facility exits leading to paved public roadways/paved areas accessible to the public.
 - (5) The owner and/or operator of a facility shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks remain on the paved ~~internal~~ roads between the rumble grate and wheel washer and the facility exits leading to paved public roadways/paved areas accessible to the public.
 - b. **Rumble Grate, Wheel Washer, Or Truck Washer:** The owner and/or operator of a facility not subject to Section 307.6(a) of this rule shall install, maintain, and use a rumble grate, wheel washer, or truck washer in accordance with all of the following:
 - (1) A rumble grate, wheel washer, or truck washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks. ~~The owner and/or operator of a facility may be allowed to install a rumble grate, wheel washer, or truck washer less than 30 feet prior to each exit, if the owner and/or operator of a facility can demonstrate to the Control Officer by September 30, 2005, that there is not adequate space to install a rumble grate, wheel washer, or truck washer no less than 30 feet prior to each exit and that a rumble grate, wheel washer, or truck washer at a shorter distance will be adequate to prevent trackout.~~
 - (a) The owner and/or operator of a facility may be allowed to install a rumble grate, wheel washer, or truck washer less than 30 feet prior to each exit if the owner and/or operator of a facility can demonstrate to the Control Officer that there is not adequate space to install a rumble grate, wheel washer, or truck washer no less than 30 feet prior to each exit and that a rumble grate, wheel washer, or truck washer at a shorter distance will be adequate to prevent trackout.
 - (b) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the rumble grate.
 - (2) The owner and/or operator of a facility shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks exit the facility via a rumble grate, wheel washer, or truck washer.
 - (3) The owner and/or operator of a facility shall post a sign by the rumble grate, wheel washer, or truck washer to designate the speed limit as 5 miles per hour.
 - (4) If haul/access roads/~~internal roads~~ are unpaved between the rumble grate, wheel washer, or truck washer and the facility exits leading to paved public roadways/paved areas accessible to the public, a gravel pad shall be installed, maintained, and used from the rumble grate, wheel washer, or truck washer to such paved public roadways/paved areas accessible to the public in accordance with all of the following:
 - (a) Gravel pad shall be designed with a layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter and 6 inches deep, 30 feet wide, and 50 feet long and shall be flushed with water or completely replaced as necessary to comply with the trackout threshold described in Section 307.6(d) of this rule.
 - (b) Gravel pad shall have a gravel pad stabilizing mechanism/device (i.e., curbs or structural devices along the perimeter of the gravel pad) and shall be flushed with water or completely replaced as necessary to comply with the trackout threshold described in Section 307.6(d) of this rule.
 - c. **Exemptions For Wheel Washers:** The owner and/or operator of a facility shall not be required to install, maintain, and use a wheel washer, if any one of the following are applicable:
 - (1) A facility has all paved ~~internal~~ roads and meters aggregate or related materials directly to a ready-mix or hot mix asphalt truck, with the exception of returned products. The owner and/or operator

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of the facility shall install, maintain, and use a rumble grate in compliance with Section 307.6(b) of this rule.

- (2) A facility is less than 5 acres in land size and handles recycled asphalt and recycled concrete exclusively. The owner and/or operator of the facility shall install, maintain, and use a rumble grate in compliance with Section 307.6(b) of this rule and shall install a gravel pad in compliance with Section 307.6(b)(4) of this rule on all unpaved ~~internal~~ roads leading to the facility exits leading to paved public roadways/paved areas accessible to the public.
- (3) A facility has a minimum of ¼ mile paved ~~internal~~ roads leading from a rumble grate to the facility exits leading to paved public roadways/paved areas accessible to the public.
- (4) A facility meets the definition of infrequent operations, as defined in ~~Section 230~~ Section 229 of this rule. The owner and/or operator of the facility shall install, maintain, and use a rumble grate in compliance with Section 307.6(b) of this rule and shall install a gravel pad in compliance with Section 307.6(b)(4) of this rule. The gravel pad shall be installed for a distance of no less than 100 feet from the rumble grate to the facility exits leading to paved public roadways/paved areas accessible to the public. The owner and/or operator of the facility shall keep records in accordance with Section 500 of this rule, as applicable. The owner and/or operator of the facility shall notify the Control Officer in the event that the facility will operate more than 52 days per year based on the average rolling 3-year period after June 8, 2005 and the owner and/or operator of the facility shall comply with Section 307.6 of this rule, as applicable.

d. Trackout Distance: An owner and/or operator of a facility shall not allow trackout to extend a cumulative distance of 25 linear feet or more from all facility exits onto paved areas accessible to the public. Notwithstanding the proceeding, the owner and/or operator of a facility shall clean up all other trackout at the end of the workday.

e. Cleaning Paved ~~Internal~~ Roads Identified In The Dust Control Plan: The owner and/or operator of a facility shall clean all paved ~~internal~~ roads identified in the Dust Control Plan for a facility in accordance with all of the following as applicable:

- (1) The owner and/or operator of a facility with a minimum of 60 aggregate trucks, mixer trucks, and/or batch trucks exiting the facility on any day shall sweep the paved ~~internal~~ roads with a street sweeper by the end of each production work shift, if there is evidence of dirt and/or other bulk material extending a cumulative distance of 12 linear feet or more on any paved ~~internal~~ road.
- (2) The owner and/or operator of a facility with less than 60 aggregate trucks, mixer trucks, and/or batch trucks exiting the facility on any day shall sweep the paved ~~internal~~ roads with a street sweeper by the end of every other work day. On the days that paved ~~internal~~ roads are not swept, the owner and/or operator of a facility shall apply water ~~as necessary to comply with Section 306 of this rule~~ on at least 100 feet of paved ~~internal~~ roads or the entire length of paved ~~internal~~ roads leading to an exit to paved public roadways/paved areas accessible to the public, if such roadways are less than 100 feet long.
- (3) The owner and/or operator of a facility, who purchases street sweepers after June 8, 2005, shall purchase street sweepers that meet the criteria of PM₁₀-efficient South Coast Air Quality Management Rule 1186 certified street sweepers.
- (4) The owner and/or operator of a new facility shall use South Coast Air Quality Management Rule 1186 certified street sweepers to sweep paved ~~internal~~ roads.

307.7 Pad Construction For Processing Equipment: The owner and/or operator of a facility shall implement, maintain, and use fugitive dust control measures during the construction of pads for processing equipment, so as to meet all of the requirements in this rule, and shall identify, in the Dust Control Plan, such fugitive dust control measures.

307.8 Spillage: In addition to complying with the fugitive dust emission limitations described in Section 306 of this rule and implementing fugitive dust control measures described in Section 307.1 through Section 307.9 of this rule, as applicable, the owner and/or operator of a facility shall implement ~~one of~~ the following fugitive dust control measures, as applicable, when spillage occurs:

- a. Promptly remove any pile of spillage on paved haul/access roads/paved ~~internal~~ roads; or
- b. Maintain in a stabilized condition any pile of spillage on paved haul/access roads/paved ~~internal~~ roads and remove such pile by the end of each day; ~~or and~~
- c. Maintain in a stabilized condition all other piles of spillage with dust suppressants until removal.

307.9 Night-Time Operations: The owner and/or operator of a facility shall implement, maintain, and use fugitive dust control measures at night, as approved in the Dust Control Plan.

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- 308** **FACILITY INFORMATION SIGN:** The owner and/or operator of a facility subject to this rule shall erect and maintain a facility information sign at the main entrance such that members of the public can easily view and read the sign at all times. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:
- 308.1** Facility name and permittee's name;
- 308.2** Current number of the air quality permit or of authority to operate under a general permit;
- 308.3** Name and local phone number of person(s) responsible for dust control matters; and
- 308.4** Text stating: "Dust complaints? Call Maricopa County Air Quality Department - (Insert the accurate Maricopa County Air Quality Department complaint line telephone number)."
- 308309** **FUGITIVE DUST CONTROL TECHNICIAN:** The owner and/or operator of a facility with a rated or permitted capacity of 25 tons or more of material per hour or with five acres or more of disturbed surface area subject to a permit, whichever is greater, shall have in place a Fugitive Dust Control Technician ~~or his designee~~, who shall meet all of the following qualifications:
- ~~308.4~~**309.1** Be authorized by the owner and/or operator of the facility to have full authority to ensure that fugitive dust control measures are implemented on-site and to conduct routine inspections, recordkeeping, and reporting to ensure that all fugitive dust control measures are installed, maintained, and used in compliance with this rule.
- 309.2** Be trained in accordance with the Comprehensive Dust Control Training Class conducted or approved by the Control Officer, successfully complete, at least once every three years, such Comprehensive Dust Control Training Class, and have a valid dust training certification identification card readily accessible on-site while acting as a Fugitive Dust Control Technician.
- ~~308.2~~**309.3** Be authorized by the owner and/or operator of the facility to install, maintain, and use fugitive dust control measures, deploy resources, and shutdown or modify activities as needed.
- ~~308.3~~**309.4** ~~Be available within 30 minutes.~~ Be on-site at all times during primary dust generating operations related to the purposes for which the permit was obtained.
- 308.4** Be issued a valid Certificate Of Completion of the Maricopa County Fugitive Dust Control Class.
- ~~308.5~~**309.5** Be certified to determine opacity as visible emissions in accordance with the provisions of the EPA Method 9 as specified in 40 CFR, Part 60, Appendix A.
- 309.6** Be authorized by the owner and/or operator of the facility to ensure that the site superintendent or other designated on-site representative of the owner and/or operator of the facility and water truck and water pull drivers for each site be trained in accordance with the Basic Dust Control Training Class conducted or approved by the Control Officer with jurisdiction over the site and successfully complete, at least once every three years, such Basic Dust Control Training Class.
- 310** **BASIC DUST CONTROL TRAINING CLASS:**
- 310.1** At least once every three years, the site superintendent or other designated on-site representative of the permit holder, if present at a site that has more than one acre of disturbed surface area that is subject to a permit issued by the Control Officer requiring control of PM₁₀ emissions from dust generating operation, shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.
- 310.2** At least once every three years, water truck and water-pull drivers shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.
- 310.3** All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Basic Dust Control Training Class, if the training that was completed was conducted or approved by the Control Officer. Completion of the Comprehensive Dust Control Training Class, as required in Section 309.2 of this rule, shall satisfy the requirement of this section of this rule.
- 309311** **DUST CONTROL PLAN:** The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all fugitive dust control measures to be implemented, in order to comply with Section 306 and Section 307 of this rule. The Dust Control Plan shall, at a minimum, contain all the information described in Rule 310 (Fugitive Dust) of these rules. All other criteria associated with the Dust Control Plan shall meet the criteria described in Rule 310 (Fugitive Dust) of these rules.
- 311.1** The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all fugitive dust control measures to be implemented, in order to comply with Section 305.2, Section 306, Section 307, and Section 309 of this rule.
- 311.2** The owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that describes all equipment associated with any process fugitive emissions to be implemented, in order to comply with Section 301 and Section 305.2 of this rule and that includes all of the information in Section

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311.2(a) and Section 311.2(b) of this rule, as applicable. If an alternative plan for conducting required soil moisture tests is approved by the Control Officer, included in a Dust Control Plan, and implemented by the owner and/or operator, as allowed under Section 301.2(c)(6) of this rule, and if the Control Officer determines that such alternative plan included in a Dust Control Plan has been followed, yet fugitive dust emissions still exceed the standards of this rule, then the Control Officer shall issue a written notice to the owner and/or operator explaining such determination. The owner and/or operator shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule.

a. Documentation for the soil moisture content in order to comply with Section 301.2 of this rule.

b. Documentation of soil moisture analysis for each move notice regarding portable sources.

311.3 The Dust Control Plan shall, in addition, contain all the information described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

311.4 All other criteria associated with the Dust Control Plan shall meet the criteria described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

311.5 The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit. Failure to comply with the provisions of an approved Dust Control Plan shall be deemed a violation of this rule.

311.6 With each move notice regarding portable sources, the owner and/or operator of a facility shall submit, to the Control Officer, a Dust Control Plan that meets the requirements of this section of this rule.

312 GENERAL REQUIREMENTS: An owner and/or operator of a facility subject to this rule shall be subject to the standards and/or requirements of this rule at all times. Failure to comply with any one of the following requirements shall constitute a violation.

312.1 Process emission limitations and controls described in Section 301, Section 302, and Section 303 of this rule.

312.2 Operation and maintenance (O&M) plan requirements for an emission control system and for dust control measures described in Section 305 of this rule.

312.3 Fugitive dust emission limitations described in Section 306 of this rule.

312.4 Fugitive dust control measures described in Section 307 of this rule.

312.5 Facility information sign requirement described in Section 308 of this rule.

312.6 Fugitive Dust Control Technician requirements described in Section 309 of this rule.

312.7 Basic Dust Control Training Class requirements described in Section 310.

312.8 Dust Control Plan requirements described in Section 311 of this rule.

312.9 Monitoring and recordkeeping requirements described in Section 500 of this rule.

312.10 Any other requirements of this rule.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS

401 COMPLIANCE SCHEDULE: The newly amended provisions of this rule shall become effective upon adoption of this rule and the following schedule applies:

401.1 ~~Dust Control Plan: When complying with Section 309 of this rule, if a Dust Control Plan is required to be revised, then a revised Dust Control Plan shall be submitted to the Control Officer by September 30, 2005 or three months after rule adoption, whichever comes first.~~ **O&M Plan:**

a. The owner and/or operator of an existing facility shall revise/update all O&M Plans by (insert date) or three months after rule adoption, whichever is first.

b. The Control Officer shall take final action on an O&M Plan revision/update to address the newly amended provisions of this rule within 30 calendar days of the filing of the complete O&M Plan revision/update. The Control Officer shall notify the applicant in writing of his approval or denial.

401.2 **Pressure Control System:** When complying with Section 303.2(e) of this rule, a pressure control system shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first. **Dust Control Plan:**

a. The owner and/or operator of an existing facility shall revise/update all Dust Control Plans by (insert date) or three months after rule adoption, whichever is first.

b. The owner and/or operator of a new facility shall submit to the Control Officer a Dust Control Plan at the time such owner and/or operator submits a permit application to the Control Officer.

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- c. The Control Officer shall take final action on a Dust Control Plan revision/update to address the newly amended provisions of this rule within 30 calendar days of the filing of the complete Dust Control Plan revision/update. The Control Officer shall notify the applicant in writing of his approval or denial.
- d. The Dust Control Plan or the Dust Control Plan revision/update must be approved by the Control Officer before operations begin.
- 401.3** ~~Operational Overflow Warning System/Device: When complying with Section 302.2(a) and/or Section 303.2(a) of this rule, an operational overflow warning system/device shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first. Basic Dust Control Training Class: No later than December 31, 2008, a site superintendent or other designated on-site representative of the permit holder, water truck drivers, and water pull drivers shall have successfully completed the Basic Dust Control Training Class, as described in Section 310 of this rule.~~
- 401.4** ~~Fugitive Dust Control Technician: When complying with Section 308 of this rule, a Fugitive Dust Control Technician shall be in place by December 31, 2005 or six months after rule adoption, whichever comes first.~~ **Comprehensive Dust Control Training Class:** No later than June 30, 2008, a Fugitive Dust Control Technician shall have successfully completed the Comprehensive Dust Control Training Class, as described in Section 309 of this rule.
- 401.5** ~~Surface Stabilization Where Support Equipment And Vehicles Operate: When complying with Section 307.2 of this rule, surface stabilization and/or paving shall be completed by December 31, 2005 or six months after rule adoption, whichever comes first.~~
- 401.6** ~~Trackout: When complying with Section 307.6 of this rule, a rumble grate, wheel washer, or truck washer shall be installed and a schedule for using PM₁₀ efficient South Coast Air Quality Management Rule 1186 certified street sweepers shall be in place by January 1, 2006.~~
- 401.7** ~~Process Emission Limitations And Controls: When complying with Section 301, Section 302, and/or Section 303 of this rule, process emission limitations shall be complied with and controls shall be installed by December 31, 2005 or six months after rule adoption, whichever comes first.~~

SECTION 500 - MONITORING AND RECORDS

- 501** **MONITORING, RECORDKEEPING AND REPORTING:** Any owner and/or operator of a facility subject to this rule shall comply with the following requirements. Records shall be retained for five years and shall be made available to the Control Officer upon request.
- 501.1** Operational information required by this rule shall be kept in a complete and consistent manner on-site and be made available without delay to the Control Officer upon request.
 - 501.2** Records of the following process and operational information, as applicable, are required:

 - a. General Data:** Daily records shall be kept for all days that a facility is actively operating. Records shall include all of the following:

 - (1) Hours of operation;
 - (2) Type of batch operation (wet, dry, central);
 - (3) Throughput per day of basic raw materials including sand, aggregate, cement (tons/day);
 - (4) Volume of concrete produced per day (cubic yards/day) and volume of asphaltic concrete produced per day (tons/day);
 - (5) Volume of aggregate mined per day ~~(cubic yards/day)~~ (tons per day); and
 - (6) Amount of each basic raw material including sand, aggregate, cement, fly ash delivered per day (tons/day).
 - (7) For facilities that assert to be below the thresholds in Section 307.6(a) and Section 307.6(e)(1) of this rule, number of aggregate trucks, mixer trucks, and/or batch trucks exiting the facility.
 - b. Additional Data For Dry Mix Concrete Plants And/Or Bagging Operations:** Records shall include all of the following:

 - (1) Number of bags of dry mix produced;
 - (2) Weight (size) of bags of dry mix produced;
 - (3) Kind and amount of fuel consumed in dryer (cubic feet/day or gallons/day); and
 - (4) Kind and amount of any back-up fuel, if any.
 - c. Control And Monitoring Device Data:** Records shall include all of the following:

 - (1) For a fabric filter baghouse:

 - (a) Date of inspection;
 - (b) Date and designation of bag replacement;
 - (c) Date of service or maintenance related activities; and
 - (d) Time, date, and cause of fabric filter baghouse failure and/or down time, if applicable.

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- (2) For a scrubber:
 - (a) Date of service or maintenance related activities;
 - (b) Liquid flow rate;
 - (c) Other operating parameters that need to be monitored to assure that the scrubber is functioning properly and operating within design parameters; and
 - (d) Time, date, and cause of scrubber failure and/or down time, if applicable.
- (3) For watering systems (e.g., spray bars or an equivalent control):
 - (a) Date, time, and location of each moisture sampling point; and
 - (b) Results of moisture testing.

501.3 ECS O&M Plan Records: An owner and/or operator of a facility shall maintain all of the following records in accordance with an approved O&M Plan:

- a. For Any ECS, Any Other Emission Processing Equipment, And Any ECS Monitoring Devices That Are Used Pursuant To This Rule Or To An Air Pollution Control Permit:
 - a-(1) Periods of time that an approved ECS is operating to comply with this rule;
 - b-(2) Periods of time that an approved ECS is not operating;
 - c-(3) Flow rates;
 - d-(4) Pressure drops;
 - e-(5) Other conditions necessary to determine if the approved ECS is functioning properly;
 - f-(6) Results of visual inspections; and
 - g-(7) Correction action taken, if necessary.
- b. For Equipment Associated With Any Process Fugitive Emissions And Any Fugitive Dust Control Measures That Are Implemented To Comply With This Rule Or To An Air Pollution Control Permit:
 - (1) A written record of self-inspection on each day that a facility is actively operating. Self-inspection records shall include daily inspections or in compliance with O&M Plan requirements, whichever is more frequent;
 - (2) Maintenance of street sweepers; and
 - (3) Maintenance of trackout control devices, gravel pads, wheel washers, and truck washers.

501.4 Dust Control Plan Records: An owner and/or operator of a facility shall compile, maintain, and retain records as described in Rule 310-Fugitive Dust of these rules. An owner and/or operator of a facility shall compile, maintain, and retain a written record of self-inspection of all fugitive dust control measures implemented, in order to comply with the Dust Control Plan, on each day that the facility is actively operating. Self-inspection records shall include information as described in Rule 310-Fugitive Dust From Dust Generating Operations of these rules.

501.5 Basic Dust Control Training Class Records: An owner and/or operator of a facility shall compile, maintain, and retain a written record for each employee subject to Section 310 of this rule. Such written records shall include the name of the employee, the date of the Basic Dust Control Training Class that such employee successfully completed, and the name of the agency/representative who conducted such class.

502 COMPLIANCE DETERMINATION –40 PART 60, APPENDIX A TEST METHODS ADOPTED BY REFERENCE FOR PROCESS EMISSIONS AND CONTROLS: Compliance determinations for activities regulated by Sections 301, 302, and/or 303 of this rule shall be made according to The the test methods for those subparts of CFR Part 60, Appendix A, adopted as of July 1, 2004, as listed below. Such subparts of CFR Part 60, Appendix A, adopted as of July 1, 2004, are adopted by reference as indicated. This adoption by reference includes no future editions or amendments. Copies of test methods referenced in Section 502 of this rule are available at the Maricopa County-Environmental Services Air Quality Department, 1001 North Central Avenue, Phoenix, Arizona, 85004-1942. When more than one test method is permitted for a compliance determination, then an exceedance of the limits established in this rule, determined by any of the applicable test methods, constitutes a violation of this rule.

502.1 Grain Loading: Particulate matter and associated moisture content shall be determined using the applicable EPA Reference Methods 1 through 5, 40 CFR Part 60, Appendix A.

502.2 Opacity Determination Observations: Opacity observations to measure the opacity of visible emissions shall be conducted in accordance with the test methods described in Appendix C (Fugitive Dust Test Methods) of these rules. Opacity observations to measure visible emissions from activities regulated by Sections 301, 302, and/or 303 of this rule shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination Of Opacity Of Emissions From Stationary Sources For Time-Exception Regulations). Emissions shall not exceed the applicable opacity standards described in

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Section 301, Section 302, and Section 303 of this rule for a period aggregating more than three minutes in any 60-minute period.

502.3 Soil Moisture Testing For Watering Systems:

- a.** If twice daily moisture sampling is required, such sampling shall be conducted within one hour of startup and again at 3 pm or within one hour prior to daily shutdown but no less frequently than once every 8-hour period.
- b.** If daily moisture sampling is required, such sampling shall be conducted within one hour after startup.
- c.** Moisture testing shall be conducted on all crushers, shaker screens, and material transfer points (excluding wet plants). Unless prior approval from the Control Officer is granted, moisture testing shall be conducted at the following sample points:
 - (1)** Within 10 feet from the point where crushed aggregate material is placed on the discharge belt conveyor from the crusher;
 - (2)** Within 10 feet from the point where screened aggregate material is placed on the conveyor; and
 - (3)** From each stacker point.
- d.** The number of sampling points identified in Section 502.3(c)(1) through (3) of this rule may be reduced, if the owner and/or operator of a facility complies with all of the following requirements:
 - (1)** A 5% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in Section 502 of this rule, is maintained at the primary crusher;
 - (2)** A minimum of 20 soil moisture samples are taken at all of the points identified in Section 502.3(c) of this rule;
 - (3)** A 4% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in Section 502 of this rule and as demonstrated by the soil moisture samples required by Section 502.3(d)(2) of this rule, is maintained at all of the points identified in Section 502.3(c) of this rule; and
 - (4)** A written request is submitted to and approved by the Control Officer to revise/modify the Dust Control Plan to reflect the change in moisture content and the reduced number of sampling points according to the demonstration made by the owner and/or operator of a facility according to this section of this rule.
- e.** Moisture testing is not required on a crusher and/or screen plant equipped with a baghouse or fabric filter, electrostatic precipitator, or wet scrubber, excluding wet spray bars, for control of particulate matter.
- f.** Moisture testing shall include all aggregate material less than 0.25 inch in diameter.
- g.** Moisture testing shall be conducted in accordance with the requirements of American Society For Testing And Materials C566-97 (2004) "Standard Test Method For Total Evaporable Moisture Content Of Aggregate By Drying" with the exception that smaller sample portions may be used.

503 COMPLIANCE DETERMINATION FOR EMISSIONS AND CONTROLS THAT ARE REGULATED BY SECTION 304 AND/OR SECTION 306 OF THIS RULE: To determine compliance with the fugitive dust emission limitations described in Section 304 and/or Section 306 of this rule, opacity observations shall be conducted in accordance with the techniques specified in Appendix C-Fugitive Dust Test Methods of these rules.

503-504 COMPLIANCE DETERMINATION FOR SOIL MOISTURE CONTENT AND SOIL COMPACTION CHARACTERISTICS TEST METHODS ADOPTED BY REFERENCE:

~~503-1~~**504.1** ASTM Method ~~D2216-98~~ D2216-05 ("Standard Test Method For Laboratory Determination Of Water (Moisture) Content Of Soil And Rock By Mass"), 1998 2005 edition.

~~503-2~~**504.2** ASTM Method ~~D1557-91 (1998)~~ D1557-02e1 ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kNm/m³))), 1998 2002 edition.

504-505 COMPLIANCE DETERMINATION FOR STABILIZATION STANDARDS TEST METHODS ADOPTED BY REFERENCE: The stabilization standards described in Section 306.5 of this rule shall be determined by using the following test methods in accordance with Appendix C-Fugitive Dust Test Methods of these rules:

~~504-1~~**505.1** Appendix C, Section 2.1.1 (Silt Content Test Method) of these rules to estimate the silt content of the trafficked parts of unpaved roads (not to exceed 6%) and unpaved parking lots (not to exceed 8%).

~~504-2~~**505.2** Appendix C, Section 2.3 (Test Methods For Stabilization-Visible Soil Crust Determination) (The Drop Ball/~~Steel Ball~~ Test) of these rules for a visible soil crust.

~~504-3~~**505.3** Appendix C, Section 2.4 (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of these rules for threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher.

~~504-4~~**505.4** Appendix C, Section 2.5 (Test Methods For Stabilization-Determination Of Flat Vegetative Cover) of these rules for flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying

on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%.

~~504.5~~**505.5** Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%.

~~504.6~~**505.6** Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements.

~~504.7~~**505.7** Appendix C, Section 2.7 (Test Methods For Stabilization-Rock Test Method) of these rules for a percent cover that is equal to or greater than 10%, for non-erodible elements.

~~504.8~~**505.8** An alternative test method approved in writing by the Control Officer and the Administrator. ~~of the EPA.~~

~~505~~**506** **CERTIFIED STREET SWEEPING EQUIPMENT LIST ADOPTED BY REFERENCE:** The list of street sweeping equipment (as of July 9, 2004) that has met the South Coast Air Quality Management Rule 1186 certification standards is found in support documents for the South Coast Air Quality Management District Regulation XI-Source Specific Standards, Rule 1186-PM₁₀ Emissions From Paved And Unpaved Roads And Livestock Operations and is adopted by refer-ence. A copy of the list of certified street sweeping equipment can also be obtained at Maricopa County Air Quality Department, 1001 North Central Avenue, Phoenix, Arizona, 85004.